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An Address
ON
A JUST PERSPECTIVE IN MEDICINE.

Delivered before the Guy's Hospital Physical Society on Oct. 8th, 1908,

BY SIR RICHARD DOUGLAS POWELL, BART., K.C.V.O., M.D. LOND.,

PRESIDENT OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON; PHYSICIAN-IN-ORDINARY TO THE KING; EMERITUS LECTURER ON MEDICINE AT MIDDLESEX HOSPITAL.

MR. PRESIDENT AND GENTLEMEN,—It is now some 14 years since, at Torquay,[1] I dealt with the subject of my present discourse, and when your President and Council did me the honour to invite me to address you to-day it occurred to me that it might be of some interest—both to my audience and myself—if I were to revert to the subject, seeking further illustrations in the light of much that has happened since in the way of medical developments. I then defined what I meant by a right perspective as being a perception of matters under immediate scrutiny or contemplation in their due proportion to other associated matters and thoughts within the same field of view; for perspective in one sense—perhaps not the most usual one—means an appropriate relation of parts to one another and to the whole view or subject.

The gift to see things in their due relationship with other things is possessed by but few people and it is not a little curious to observe how in politics, religion, science, and even art, persons lose their sense of perspective as they become engrossed in the study of one special department or aspect of things. The State wisely recognises this weakness of human nature even in the great, by adopting the apparent anomaly of putting men of general affairs rather than specialists in control of departments, men of business rather than soldiers or sailors at the head of the War Departments, a brilliant man of letters at the head of the Department for India, and anyone rather than a schoolmaster to superintend education. So in medicine or surgery it is wise that every specialist should have an assessor, and the force of this last remark gathers momentum of application with the increasing number and profoundly increasing complexity in technique of the specialties in practice and research that have developed in our great science of medicine within recent times.

At the time of my previous address the use of the clinical thermometer had long been established, indeed the instrument had already become a part of the average household equipment. In the eyes of the public the temperature in all active diseases had become the objective of attack and defence, the criterion of hope and fear; the pulse and respirations were registered in comparatively obscure corners of the chart, written in small print, and one noticed a growing disposition in students to neglect to feel the quality of the pulse, or to note the characters of the breathing, leaving them rather for the nurse to record, and merely glancing at them when inspecting the temperature so boldly outlined on the chart. How few practitioners, indeed, there are who have acquired the art of accurately gauging the arterial resistance, cardiac power, and reserve vitality, and much else that may be learned of the patient by the characters of his pulse. Like many other quotations, "The hand of little employment hath the daintier sense" has no meaning outside its context and particularly does not apply to medicine. I am glad to see a growing tendency, which I think we owe to the abdominal surgeons, to render in equivalent lines temperature, pulse, and respiration. It at least broadens the view of the case by recording the three great indices of clinical medicine, to be analytically read and examined in the light of experience and in perspective with all other conditions.

With the importance that was attached to every movement of the thermometer there could be little wonder that measures were soon discovered—in the use of synthetic remedies—that should lower its records. Antipyrin was one of the first of such drugs which had the brilliant and obvious effect of lowering the peaks of temperature. Even with our imperfect insight at that time into the real meaning of fever temperatures there was still a want of perspective in our reading of and attacking such temperatures. We knew better, but were obsessed on the one hand by a magnified importance assigned to mere temperature, and on the other by the inadequately appreciated efficacy of a new class of remedies. It was about that time that hyperpyrexia with its fatal consequences had gained hold upon the professional mind, and thus one way and another practitioners got into the habit of chasing the temperature round the dial with antipyretic remedies. I ventured, at the time I am speaking of, to point out that "recent and, as yet, not fully disclosed pathological researches give a new interpretation to some pyrexial phenomena which the thermometer but faithfully records, and are shedding a new light upon the natural history of pyrexial diseases. Thus the interesting stories which—some of them, perhaps, fables—come to us from our bacteriological laboratories, of the loves and antipathies, the triumphs and disasters, in the microbe world, assume a new and strange fascination for us as we come to recognise ourselves, our blood and tissues, as forming more and more largely their playgrounds and battlefields." The story of microbic action in specific diseases has year by year grown in incident and importance and presents to us chapter upon chapter of surpassing interest.

The fact was then well known that the organisms specific to most of the acute diseases—tubercle, anthrax, pneumonia, influenza, enteric fever, and perhaps rheumatism—germinated at or above blood heat and that their multiplication was retarded or arrested, although they were not killed, at the higher degrees of fever, about and above 104° F., and it seemed to me that the tendency in practice was to pay too much attention to the higher excursions of the thermometer and to ignore or even to seek to bring about low ranges or deep depressions as salutary or of negative importance. This view was growing upon many physicians after three or four years' experience of disastrous epidemics of influenza, and Dr. Hale White particularly gave the weight of his authority in favour of the same warning. Every febrile disease has a temperature of its own. Pyrexia is, indeed, a normal reaction to toxic invasion, and a rise of temperature is a symptom as proper to certain diseases as a normal temperature is to health. Antipyretic remedies should therefore be used to moderate those degrees of temperature which are dangerous to the integrity of the nervous system, heart, and kidneys, not with the aim of giving a subnormal range to a pyrexial disease.

The demonstration by Cohnheim in 1867 of the important part taken by the leucocytes in the process of inflammation, which had, I believe, been already inferred by Addison a quarter of a century before, was a great addition to the cellular pathology of Virchow which prevailed in those days; and, as some of you remember, Cohnheim's views on the migrations of leucocytes caused no little commotion amongst those who had abandoned the antecedent exudation theories in favour of cell multiplication in the parenchyma or alveolar or intercellular tissues in inflammation and in growths. The brilliant discovery many years later by Metchnikoff of the phagocytic function of the leucocytes gave a new significance to their migration towards centres of irritation which Cohnheim had demonstrated. More recently still the equally brilliant work of Sir Almroth Wright has disclosed certain opsonic powers in the blood serum which aid and encourage phagocytic action. Even to-day, however, if we are asked why a toxin produces fever, we can only answer because it is a poison acting upon the thermic centres through certain channels, and if the question is put why certain leucocytes attack bacteria we can only say they are living beings and "'tis their vocation" to go for the foreigners more or less like trout for the May fly! The fact that leucocytes press towards local centres of inflammation which are invaded by bacteria is a part, the very first line, of the old story "ubi irritatio ibi fluxus," with all the additional meaning which modern pathology reads into it. And when finally we inquire of the blood in what consists its opsonic power, we are more than ever nonplussed and call to mind the witty simile used by a certain learned body which in discussing with Dr. Martinus Scriblerus the nature of self-consciousness compared it to the "meat roasting quality of a jack," which resides neither in the

[1] A Right Perspective in Medical Thought and Practice, THE LANCET, Oct. 20th, 1894, p. 903.

fly, nor the weight, nor the wheel, but is the result of the whole composition. I ventured to ask in reviewing the first discussion[2] on tuberculin treatment as regulated by observation of the opsonic index, whether any chemical researches had been undertaken to ascertain the nature (chemical, I presumed) of this opsonic quality in the serum. I did not meet with an encouraging response, and I am not aware that any special inquiry has been made into the matter. Is it a property of the serum or a secretion added to it from the cellular elements of the blood? The latter seems the more probable—viz., to continue our simile, that the "meat-roasting quality" adapted for each particular bacillus is yielded by the vital action of the phagocytes, that these little spitfires do, indeed, secrete something into the serum that obsesses their prey and renders it more amenable to absorption and digestion. Shattock and Dudgeon[3] apparently assume opsonin to be a particulate substance capable of adhesion to and removal from the serum by inanimate matter such as melanin. But although speculative, the view I have suggested seems to me most in accordance with the trend of opinion, to which we are drawn by the work of Wright and the side-lights cast upon it by the researches of Strangways, Shattock, and many others.

Natural and acquired immunity to specific diseases has for ages been a matter of knowledge from observation. The great Jenner at the end of the eighteenth century was the first to give it any specific meaning and to utilise it to any specific purpose, although it was practically accepted in the time of Lady Mary Wortley Montagu 80 years earlier, when inoculation was introduced as a preventive of small-pox, and met, in the middle of the century, with the approval of the Royal College of Physicians. But Koch and Wright have within very recent years given considerable precision and practical direction to measures for securing immunity. For, all fallacies to the contrary notwithstanding, as the lawyers say, we have learned from them that minute and definite doses of toxins, such as are attached to the bodies of dead and sterilised bacilli, cause a reaction in the blood of an antagonistic kind, which results in the raising of its opsonic qualities with regard to the particular bacillus concerned; and the fact that definite doses of a given specific poison cause a reactive immunity—a phagocytic antagonism to the organisms that produce the poison—has a very wide application in clinical medicine and gives a clearer insight with regard to much that has already become a part of our pathological and therapeutical experience. Thus we see more clearly why the routine sanatorium treatment of phthisical patients by exercise and rest, as regulated by the indications of the temperature chart, is sound practice. For the past three years Dr. M. S. Paterson at the Frimley branch of the Brompton Hospital has adopted more thoroughly organised and closely supervised and graduated labour exercises, at first regulated by the readings of the clinical thermometer alone, but in the past year supplemented by careful opsonic tests, which, under the direction of Dr. A. C. Inman, are found closely to correspond with the thermometric indications. Similarly beneficial results have been observed in arthritis and other bacterial lesions from the alternating conditions of anæmia and congestion locally effected by massage and the methods of Bier, and it has long been known both to physicians and surgeons that the opening up of serous cavities with free drainage will sometimes suffice to cure a pleurisy or a peritonitis which is demonstrably of tuberculous nature. Wright and his pupils explain these clinical observations by showing that by exercises or mechanical means such a moderated degree of afflux of blood can be secured to a local or more or less quiescent tuberculous or other bacterial lesion, as will cause a discharge of toxin from it, and so produce a reactive upraising of the opsonic power of the blood serum and secure more effective phagocytic action. At the same time it must not be forgotten that a larger number of leucocytes are brought within the disease areas. These clinical methods of producing immunity are more nearly on all fours with the idea of vaccination, so far as the original idea is acceptable, than the artificial use alone of the sterilised toxins.

It is absolutely essential, on economic grounds as well as on those of clinical convenience, that a workable clinical index be found to guide the use of vaccines, whether given artificially or absorbed automatically under exercise conditions, in the treatment of tuberculous and other bacterial diseases of any duration, before such methods of treatment can become largely available for private patients for whom costly and expert opsonic observations are not available. Laboratory work must be brought into line with clinical observation in this, as in many other respects, in order that its results may attain full value. An important beginning has already been made in this direction by my colleague Dr. A. Latham who, in association with Dr. H. R. D. Spitta of St. George's Hospital and Dr. Inman of Brompton Hospital, has contributed a valuable and suggestive paper to the Royal Society of Medicine, which treats of the relation of the opsonic indices to temperature and discusses the value of the temperature curve as a guide in tuberculin treatment.[3]

The clinical observations of Dr. Latham and the opsonic examinations of Dr. Inman and Dr. Spitta strongly support the view that with an initial opsonic observation, and perhaps an occasional further test, the treatment of bacterial diseases with vaccines can be guided with practical efficiency by temperature indications. The higher ranges of temperature are records of depressed indices, which are negative phases induced by excessive administration or production of toxins, whilst normal or in some degree subnormal temperatures correspond to a reactive elevation of the index.

Just as in logarithms and other formulæ we find in a concrete form the results of enormous mathematical labour which can be used at sight by practical engineers, few of whom could perhaps even understand the calculations from which the results are obtained, so it is to be hoped and expected that laboratory research will yield clinical indices for the bedside guidance of the practitioner. And in proportion as the results of these minute bacteriological inquiries become available as a part of general clinical knowledge and method, so is the relational outlook or perspective of medical practice enlarged and deepened. Perhaps no better illustration could be found of the essential and organic connexion between hospital and laboratory work, which many shallow-thinking people would wish to divorce. There is, of course, much yet to be accomplished. I do not think we are yet informed as to the opsonic indication of the greater depressions of temperature. We want, further, to know more than we did 14 years ago, about the effect of mere temperature in inhibiting or otherwise the bacillary activity by which the toxins are produced. I ventured to express the belief, founded upon clinical experience, that a high temperature inhibits bacillary activity and so prepares for a decline of temperature, and that when the depression is sufficiently great fresh bacillary activity is again favoured. This view does not at first sight seem to tally with recent opsonic experience, by which one would judge the resistance at least to be lowered during high and heightened during low temperatures. I am inclined to think that this discrepancy is more apparent than real and will be cleared up by further observations. A high opsonic index is not incompatible with an activity of toxin production which may overpower it and again send up the temperature.

We also want much further information as to the effect of drugs, especially of quinine, arsenic, antipyretics, alcohol, nucleins, trypsin, as well as of vital conditions, such as anæmia, menstruation, the climacteric period, &c., upon the opsonic index.

The value and limitations of the opsonic treatment of specific diseases are still under consideration, and in diagnosis I have met with several instances of errors, giving rise to at least much inconvenience and expense to patients, from opsonic or other bacteriological research—results being regarded too exclusively and apart from the other clinical features of the case.

The whole question of natural or acquired immunity to specific diseases is a very interesting one. One meets with instances of persons who, after having visited health resorts for many seasons on account of pulmonary disease, have wearied of their wanderings and settled in home quarters. With, perhaps, a considerable amount of disorganisation of one lung, their disease at last arrives at a stage of quiescence. Such patients will now continue in this condition for years and perhaps die from a totally different malady. I can recall two instances in which, after many years, cancer of the breast with internal recurrence has terminated such cases. They seem to possess a considerable strength of immunity. I have known severe attacks of influenza to fail to bring about relapse. Do these cases become immune

[2] Transactions of the Royal Medical and Chirurgical Society, vol. lxxxix., p. 117.
[3] Proceedings of the Royal Society, B., vol. lxxx., 1908, p. 169.

by virtue of auto-vaccination, and are we right in regarding them as automatic and haphazard examples of quiescence brought about by conditions which are more systematically and scientifically secured by the graduated labour conditions of Paterson?—conditions, that is, effecting an auto-immunisation equivalent to larger and larger doses of tuberculin until the opsonic index for tubercle—whatever that may mean—has become steadily high and the patient permanently protected.

It is probable that many people experience unconscious attacks of various acute specific diseases which enable them to resist attacks from subsequent exposure. It occurred to me a few years ago to see in quick succession three cases in which, on the strength of a positive Widal report from a research society, a diagnosis of enteric fever had been arrived at in the absence of any other confirmatory symptoms. In one of the cases rooms had already been cleared and nurses secured for the enteric campaign, but the case proved only a slight one of influenza and the patient was about his business in three days. The others were influenza and lymphadenoma respectively. Apart from illustrating the importance of regarding any one sign or symptom, however valuable in itself, in due proportion with the other features of the case, these instances were in favour of the view that the patients had been unconsciously subjected to the influence of the enteric poison in slight and merely immunising degree. None of them had been vaccinated against typhoid fever, but the gentleman to whose case I specially refer had been in South Africa during the war. Again, one comes across many cases which bear a similar interpretation, old unrecognised tuberculous depositions, febriculas, catarrhs, anomalous and slight degrees of measles, whooping-cough, or sore-throats so common at the commencement and the decline of epidemics, and which may be specific enough to prove protective. One often observes the dwellers in an old insanitary house to have for years experienced no defined illness, yet a new tenant will at once succumb to an enteric or diphtheritic attack. Whether in these cases any specifically altered opsonic index obtain, or whether there is some structural change in the avenues of entry of such diseases—the tonsils, faucial glands, Peyerian glands, bronchial glands, the spleen, &c.—which renders them sterile soil for fresh invasion, I have no knowledge.

With regard to the permanence of the immunity from tuberculosis there is a *caveat* to be entered. No man, in my belief, however soundly "cured," can safely return to the crowded office or insanitary factory life under which he may originally have acquired his disease. With old lesions in his lungs, however quiescent, he is liable to bacterial invasion and lodgment (other than tuberculous) about the damaged surfaces, which cause infective congestion or inflammation and thus establish fresh conditions for cultivation of localised tubercle bacilli "which are not dead but sleepeth," the toxins from which will break down his immunity.

I should like to express my sense of the indebtedness of the profession to those physicians and surgeons who have done so much to bring the research work of modern times into closer touch with clinical medicine. Many of the most important observations in medicine have been the result of patient bedside investigation: Addison's disease, pernicious anæmia, the differentiation of enteric from typhus fever, the recognition of myxœdema, and others might be quoted; and the physicians of Guy's Hospital have been conspicuous in contributions of this kind.

I have it in mind that one of the first observations leading to a symptomatic localisation of nervous lesions was derived from a case in which a dagger thrust had divided a segment of the spinal cord high up, and the effects of which were observed by a great surgeon of the time, whom I cannot at this moment identify. Our first clear views of the physiology and chemistry of the digestive process were derived from observations by Beaumont on Alexis St. Martin. It may be that with Claude Bernard and the rise of his school of experimental physiologists, a disposition to submit problems first hand to experiment tended for a time rather to discourage clinical observation and to induce physicians to accept physiological teaching for their practical guidance. If so, it was but a momentary "stand at gaze" of a practical profession in obedience to the dominance of a particular school of thought. Clinical observation had been brought into line with physiological research by Marshall Hall, the great expositor of physiological tenets as applied to medicine, who was succeeded by Charcot and Hughlings Jackson, the great clinical observers of nervous diseases, and later still by Victor Horsley and Ferrier, who have so successfully combined experimental and clinical methods; and, in the sense in which I am now speaking, perhaps no one has contributed more to our exact knowledge of cerebro-spinal anatomy than Sir W. Gowers, by his combined clinical and pathological observations on localised cerebral and spinal lesions and the paths of degeneration leading from them. And at the present time the currents of nervous influence, their cerebral and spinal source, and the territories to which they lead are as fully charted as are the paths of human intercourse by land and sea and the countries which they connect. Bence Jones and Garrod carried out important investigations into diseased conditions from the chemical and metabolic side in the patients under their clinical observation, and Dr. F. W. Pavy has, by unremitting laboratory work in connexion with bedside observation, told us most that we know of glycosuric maladies, which the experiments of Claude Bernard elucidated from the more purely experimental side.

I have sufficiently illustrated my text by references to combined clinical and laboratory examination of blood conditions, to which large field a whole course of lectures might be devoted. I would pass on to allude to the encouragement given to enlightened clinical research by the Oliver Sharpey lectures at the Royal College of Physicians, instituted by the generosity of Dr. G. Oliver of Harrogate, who has himself done so much "in searching out the secrets of nature by way of experiment," both clinically and in the laboratory. The latest and perhaps the most important development of this newer phase of practical medicine is to be found in the establishment at Cambridge of a Committee for the Study of Special Diseases, which has now been at work some two years. Composed partly of men engaged in practice and partly of those pursuing scientific research, the object of the committee is to investigate important and obscure diseases, receiving a few cases of one sort at a time for a period of close observation with all the methods of modern science. This is an example which our great hospitals might well follow by the establishment of a research ward for clinical investigation of chronic maladies. It would add strength to their teaching and be of great service to the community.

It may be thought that I have diverged from my text into a disquisition about things of which I know but little. I would urge, however, on the one hand, that my argument is that all the factors of medical diagnosis and treatment, however technical and dependent upon separate inquiry and research at the hands of experts, must be brought into line and perspective with one another and must be made comprehensible to the practising physician before they can be of real value, or, at least, of more than scientific interest. I have heard it often complained that the discoveries of Harvey, of Jenner, of Darwin, of Pasteur, of Lister, of Koch have each in their turn been received with incredulity and hostile criticism. Surely this is more as it should be than if they had been met with an amiable and supine acquiescence. Hostile criticism is the best advertisement and controversy makes for education. It is right and desirable that each new phase of science in its bearing upon the art of medicine should be subjected to the fire of criticism, to purify it and weld it into due relation with all other factors. Until it has passed through that ordeal it remains but of philosophical interest. We have learned much since the first days of inoculation for small-pox, and Jennerian vaccination as an institution is only defensible in perspective with the facts of the time, the positive facts of the appalling virulence and loathsome and fatal effects of the disease, and the negative fact of its actual cause not being then, nor even now, known to us. It was instituted in hygienic darkness; in the light of preventive science and with the efficacy of police sanitation and the certainty sooner or later of the true nature of the disease being discovered we may foresee the time when vaccination employed in contact areas alone may be adequate for the protection of the community. Had Haffkine's vaccine been known in the dark and evil days of plague epidemics in this metropolis it might have been adopted for a disease which has since been wiped from the slate of Europe by hygienic measures alone. This does not lessen the value of Haffkine's discovery and the usefulness of its application, not in place of, but ancillary to, the more fundamentally important methods of hygiene in contact areas.

It might be arguable, I am inclined to think that it is in the minds of some, that inasmuch as with the increased purity of our surroundings we are becoming more and more virgin soil for specific poisons, we should be vaccinated against the principal of them—e.g., enteric fever, plague, tetanus, tubercle—to which we are likely to be exposed in neighbourhoods less well guarded than our own. Except as a preventive measure in actual contact areas, it is unlikely, however, that the saving humour and common sense of the profession will ever entertain the idea of our becoming as it were such pathological pin-cushions. It is probably wiser to hold immunity in reserve than to risk its exhaustion beforehand.

There never was a period when we could see so minutely into disease as we can now, and as time advances our vision will become still more penetrating; it behoves us the more to preserve the range and proportion of things lest this finer insight may but enable us "with finer optics given t'inspect a mite not comprehend the heav'n." This thesis would bear very wide illustration far beyond my time and compass. The brilliant and penetrating search-lights—microscopic, radiographic, ophthalmic, auro-laryngo-spectro-scopic, sphygmographic, cardiographic, not to mention electrophonic methods and others which I have not yet in mind—with which we are now provided must be used with much discretion and not a little forbearance. All the defects of our poor personalities, by these trenchant means disclosed, must not always be taken too seriously and must be regarded in strict relation with age and other circumstances connected with the case. The alienist has to content himself with a standard below his own or all his friends would be insane! In many instances, as years advance, a cardiac hypertrophy or a mitral murmur may be for a man's salvation, and should not then be regarded as a disease. A great physician to your hospital once twitted a friend who was chagrined at having missed a pericardial friction with the remark "that he might have treated it." It is rarely wise, except in the emergency of a critical moment, to make a frontal attack upon a high blood pressure. Many a case of renal inadequacy and not a few of senile decadence have suffered from this symptomatic enthusiasm. As an American attaché said to an English general who was squandering his forces in disastrous frontal attacks, "Is there no way round, general?" I am aware that the learned Dr. Richard Mead wrote a chapter "On the Disease of Old Age," basing his thesis upon the graphic description of that "malady" by Solomon. But is old age a disease? If so, it had best rest undiscovered with Sir W. Gull's pericarditis lest it be treated! I would rather regard the changes in organs incidental to age as the health of the autumn leaf preparing for the fall, and in the survey of our inward parts as age advances I would urge the importance of a right perspective.

"Il ne faut pas chercher midi à quatorze heures."

An Address
ON
BLOOD PRESSURE IN MAN, ITS MEASUREMENT AND REGULATION.

Delivered before the Cardiff Medical Society on May 6th, 1908,

BY SIR LAUDER BRUNTON, BART., M.D. EDIN., F.R.C.P. LOND., F.R.S.,
CONSULTING PHYSICIAN TO ST. BARTHOLOMEW'S HOSPITAL, LONDON.

[SIR LAUDER BRUNTON commenced his address by thanking his audience for having invited him to address them a second time.[1] On the last occasion he had chosen the subject of Atheroma. His present address was supplementary to the former. After mentioning the physical conditions which would raise or lower the blood pressure he proceeded:—]

The first definite attempts to measure the blood pressure were made by the Rev. Stephen Hales who connected a piece of glass tubing with the opened artery of a living animal and noticed how far the blood rose in the tube. The next improvement was made by Poiseuille, a Frenchman who substituted a bent tube containing mercury for the straight tube of Hales. The next improvement was made by Ludwig, who added to Poiseuille's tube a fine rod which rested on the surface of a mercurial column, moved up and down with it, and recorded its movements on a revolving cylinder. It is to Ludwig and his pupils that we owe a very large proportion of the knowledge which we now possess regarding blood pressure, and perhaps in these days of active outcry against vivisection and of lying statements regarding the cruelties which are said to be perpetrated by those who employ the methods of experimental physiology, I may state that Ludwig's humane character was so well known to his fellow townsmen that they elected him President of the Leipzig Thierschutzverein, that is to say, of the Society for the Prevention of Cruelty to Animals. My old friend, Professor von Basch, who was, like me, one of Ludwig's pupils, spent his winters in physiological research and his summers as a practical physician at Carlsbad. He had thus a double training, experimental and clinical. His clinical work showed him the great need of measuring the blood pressure in man. This was impossible with the methods previously in vogue which involved opening an artery. He therefore tried to discover a method of measuring the blood pressure in an unopened artery. It is not always easy to trace the introduction of new methods, especially when their introducers and those who have been personally acquainted with them have passed away, and so you will, perhaps, allow me to tell you something of the first introduction of this method. Professor von Basch was not a member of the Physiological Society of Berlin but he was taken there on Jan. 30th, 1880, by another of my old friends who was also a pupil of Ludwig, Professor Kronecker. He there gave the first demonstration of his method.[2] He exposed one femoral artery of a dog and connected it with a mercurial manometer. Over the other femoral artery he put a small indiarubber bag or bulb which was connected with a mercurial manometer and also with a pressure apparatus which allowed the pressure exerted upon the artery to be increased or diminished at will. (Fig. 1.) He then gradually raised the pressure and showed that at the moment when pulsation could no longer be felt in the distal part of the artery, beyond the bulb, the mercurial column connected with it stood at the same height as the other one which was connected to the open femoral artery. In this way he proved conclusively that it was possible to estimate exactly the pressure of blood within the artery. Here again I may mention that if I were to describe to you my journey from London to Cardiff to-day I should probably omit to say that I took a ticket before I entered the carriage because this is an invariable preliminary to a railway journey. In the same way all animals in Ludwig's laboratory were so invariably narcotised by laudanum before any operation was begun that mention of the fact was frequently, indeed, I think generally, omitted in describing their experiments both by himself and his pupils as in the case of von Basch's demonstration. The instrument which von Basch used at the meeting of the Physiological Society, though well adapted for a public demonstration, was not at all suitable for clinical work. He therefore devised one in which a mercurial column was connected with a tube containing water and covered by a piece of sheet indiarubber at one end. (Fig. 2.) The method of using this was to press it upon the radial artery until the pulse was obliterated, so that it could no longer be perceived by the finger placed on the artery beyond the point of pressure. The pressure was then read off directly on a scale. But this instrument also was very unsatisfactory and unless kept carefully in the upright position was almost certain to get quickly out of order. He therefore discarded the mercury in favour of an aneroid manometer. To this a small elastic bag was attached by which the artery could be compressed and the amount of pressure directly read off on the scale of the manometer. (Fig. 3.) The elastic bag originally used by von Basch was surrounded by a metal ring to prevent too great lateral expansion. Potain replaced the metal ring by making the sides of the bag of thicker indiarubber. Both these contrivances (Figs. 4 and 5) may be discarded, and the bag at present used with von Basch's instrument (Fig. 6) is one of plain rubber. This instrument has the great conveniences of being very readily portable, not liable to get quickly out of order, not likely to alarm the patient, and it can be used in half a minute, so that the time

[1] THE LANCET, Oct. 12th, 1895, p. 897.

[2] Verhandlungen den Physiologischen Gesellschaft zu Berlin, Jahrgangr 1879-80, No. 7.

required by a busy man to examine the pulse with it is very small; he may count the pulse-rate in half a minute and he may take the tension in half a minute more. The disadvantages are (1) that after

FIG. 1.

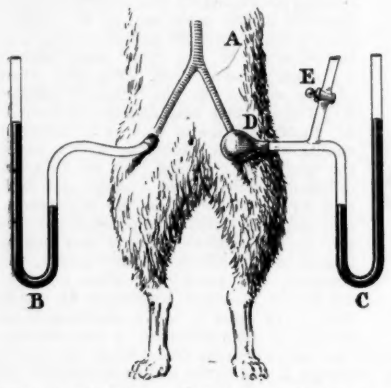
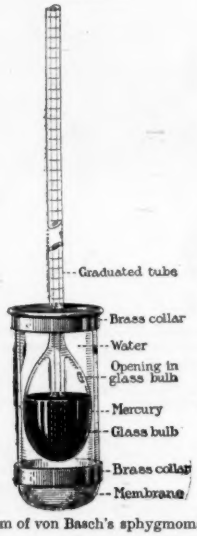


Diagram to illustrate von Basch's demonstration of the method of measuring blood pressure in unopened arteries. A, Aorta dividing into iliac arteries. B C, Manometers. D, Rubber bag over femoral artery. E, Tube leading to pressure apparatus.

long use and still more after careless use the readings are apt to become incorrect; (2) that when the artery lies deeply and is protected from pressure by overlapping tendons it may be difficult to obtain a reading; and (3) unless the bulb is placed directly over the radius so as to press the artery against it and unless pressure is exerted at right angles to the bone too high readings are likely to be obtained. Another fallacy is caused by a recurrent pulse which passes from the ulnar artery through the palmar arch and may be felt by the finger, although the radial has really been obliterated by the pressure. To avoid this the radial pulse should be felt with the forefinger placed parallel to the artery so that its tip just touches the bulb. Then the pulp of the finger pressing upon the distal portion stops the recurrent pulse and the radial pulse is felt by the tip.

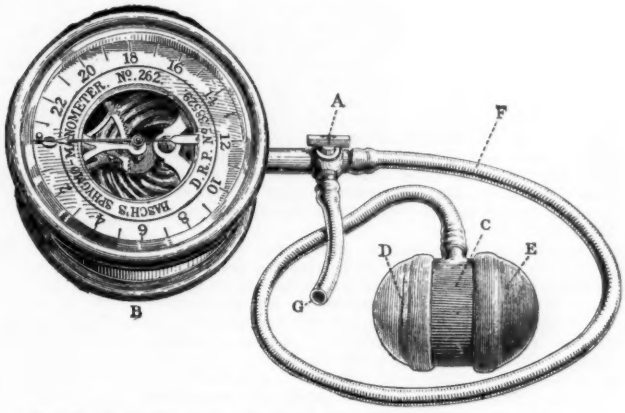
Another class of instruments for measuring blood pressure depends upon the use of a band which encircles the finger or limb instead of a pad which merely presses upon the artery. These bands may be connected either with a mercurial or an aneroid manometer. One which is largely used abroad is Gaertner's tonometer. (Fig. 7.) This consists of a metal ring with an elastic bag inside large enough to admit a finger. The bag is connected by a tube with a mercurial or aneroid manometer on the one hand, and with a pressure bag on the other. After the ring has been placed on the finger the blood is squeezed up from the tip by pressing upwards over it a small strong rubber ring or by winding over it a piece of elastic tube which renders the end of the finger bloodless and white. (Fig. 8.) The pressure is then raised within the ring to a height which is likely to compress the finger so tightly that no blood can pass through the artery. The rubber ring is then removed. Next, the pressure is gradually lessened in the metal ring, and the moment is noted at which the blood again returns to the finger. This point indicates the pressure within the arteries of the finger. Another plan which appears to find more general favour in this country is one introduced by Riva Rocci, and a little later by Hill and Barnard. (Fig. 9.) In their instruments a band encircling the arm is used instead of a ring round the finger but the method is otherwise much the same. In Riva Rocci's instrument the band was too narrow, but in Hill and Barnard's and subsequent ones it has been widened and strengthened externally by some stiff material. There are a number of modifications of Riva Rocci's instrument, but I think upon the whole the most convenient is C. J. Martin's. This consists of a bent tube containing mercury which is prevented from spilling when not in use by a tight rubber cap at each end. (Fig. 10.) A broad indiarubber bag, stiffened by a broad strip of firm leather on its outer side and kept in place by a layer of soft chamois leather inside, is passed round the arm and fastened by two belts with friction buckles so that it can be applied very quickly. This bag is connected by indiarubber tubing with the manometer and also with a small indiarubber ball by which air can be pumped in. This ball is provided with a screw valve, so that the air can be allowed to escape very gradually. The band is fastened round the arm so as to lie flat and moderately tightly. It is then connected with the bulb and the manometer and the pressure is gradually raised until the pulse can no longer be felt. The screw valve is then loosened so as to allow the air to escape and the pressure within the band to diminish. The point at which the pulse returns is again noted. Generally the heights of the mercurial column when the pulse disappears and reappears coincide pretty nearly,

FIG. 2.



Early form of von Basch's sphygmomanometer.

FIG. 3.



Von Basch's sphygmomanometer, from a specimen in the possession of the author. A is a three-way stopcock, by which the aneroid B can be put in communication either with the bulb C or with the outer air. C is a metal ring with caps of indiarubber D and E. F is the indiarubber tube connecting the bulb and aneroid. This is not the first form of von Basch's sphygmomanometer. The bulb which he first used was included in a metal case somewhat resembling Marey's cardiograph. My instrument needed repair, so I sent it to Vienna, and it was returned by the maker with the bulb figured above.

FIG. 4.

Potain's modification of von Basch's sphygmomanometer. A is a bulb of soft indiarubber with a harder piece, B, on which the finger presses. R is a stopcock which allows the aneroid to communicate with the open air. This is made by M. Boulitte, successor to M. Charles Verdin, 7, Rue Linné, Paris.

but in some cases I have noted a very distinct difference of from 10 to 20 millimetres. It would almost seem as if in some cases the walls of the arteries when once compressed took a while to open out again under the pressure of the blood so that the second reading is lower than the first. The exact cause of this I am unable to explain. In fat people I think the instrument is apt to give too high a reading. The pressure which suffices to stop the pulse in the arteries corresponds to the ventricular systole and is consequently called the systolic pressure. By allowing the air to escape still further a point may be noted where the oscillations of the mercury at each pulse beat attain a maximum, and this point is the diastolic pressure. It is less easy to ascertain than the systolic. In Oliver's modification of Riva Rocci's instrument the other parts are nearly the same as in Martin's, but instead of a mercurial column he employs a column of air with a fluid index which works under pressure. (Fig. 11.) The advantage of this instrument is that the oscillations are larger and the diastolic pressure is more easily read off, but it is more liable to get out of order than Martin's. For convenience sake I frequently use Riva Rocci's armlet with Potain's aneroid manometer. (Fig. 12.)

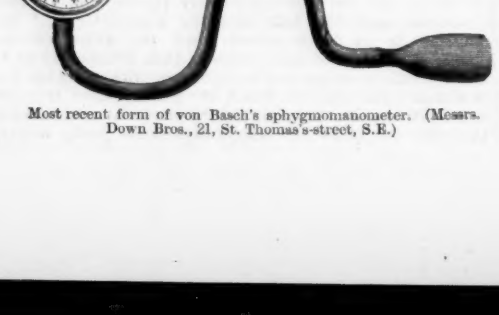
As a mercurial column is always the standard to which other instruments for measuring the pressure are referred, it is convenient to have a method of comparing them with the mercurial manometer. For this purpose I therefore connect either aneroid manometers, or Oliver's with Martin's and slowly raise the pressure in both by means of a bulb with a T tube. (Fig. 13.) Should the other instruments happen to read incorrectly it is easy to note on a piece of paper what corrections are to be made at different pressures in the same way that thermometers tested at Kew have a certificate showing the corrections necessary at each temperature. The relations between the systolic and diastolic pressures vary very considerably under different circumstances. You will easily see this by comparing the height of each pulse wave in an experiment on blood pressure made with a mercurial manometer connected to the carotid artery of a dog. In the normal condition with a strongly acting heart and moderately dilated arterioles the variation amounts to nearly 40 millimetres, while the maximum pressure is only about 95. (Fig. 14.) In the second case where the arterioles have become contracted by the intravenous injection of digitalin in the same animal the height of the pulse wave is only 28 millimetres—i.e., less than three-fourths of the first wave—although the maximum pressure is 106. (Fig. 15.) The relation of the systolic to the diastolic pressure is as 5 to 2 in the first case and in the second as 5 to 4. Blood pressure in man is of course liable to similar variations, according to the condition of the heart and arterioles, but on an average the difference between the systolic and diastolic is said to be about 25 to 40 millimetres. Both maximum or systolic blood pressure and its relationship to the diastolic pressure may undergo considerable variations in the same person, and on one occasion, five years ago, when going to meet my friend Professor Kronecker at the Jungfrau Railway in order to make experiments on blood pressure at high altitudes, I was unable to get a seat on the railway from Grindelwald to the Jungfrau tunnel, although I was at the station 20 minutes before the time of the train starting. I had taken my pressure just before and found it to be 120 millimetres of mercury. When I found the train was full I sat down to wait for the next, but the agitation caused by my inability to keep my appointment with Kronecker raised my pressure to 160 millimetres, although I was sitting down apparently perfectly quiet and placid—that is to say, the agitation caused the maximum pressure to run up one-third of its previous amount. Contrary to my expectation I did not find any difference between my own pressure at the height of the Jungfrau Railway and in London, nor did I find any difference in the pressure of the workmen employed upon the railway as compared with men working at lower levels.

According to my own observations the maximum pressure in children from eight to 14 years of age is about 90 millimetres; below eight I have no observations. From about 15 to 21 years of age it is about 100 to 115 or 120; from 21 to 65 years from 120 or 125 up to 135 or 150; and above 65 years it may still remain at 135 to 150, or about this pressure if the arteries are elastic, or it may go up to 180, 200, or even higher. In women the pressure is, as a rule, about 10

FIG. 5.

Mode of applying Potain's sphygmomanometer. This figure is not quite correct, for it is better to place the palpating finger parallel to the artery instead of at right angles to it. Only one finger should be used to feel the pulse, as if two are used the elastic bulb is pushed too high above the end of the radius and too high a reading is obtained. A is the arm, M is the manometer.

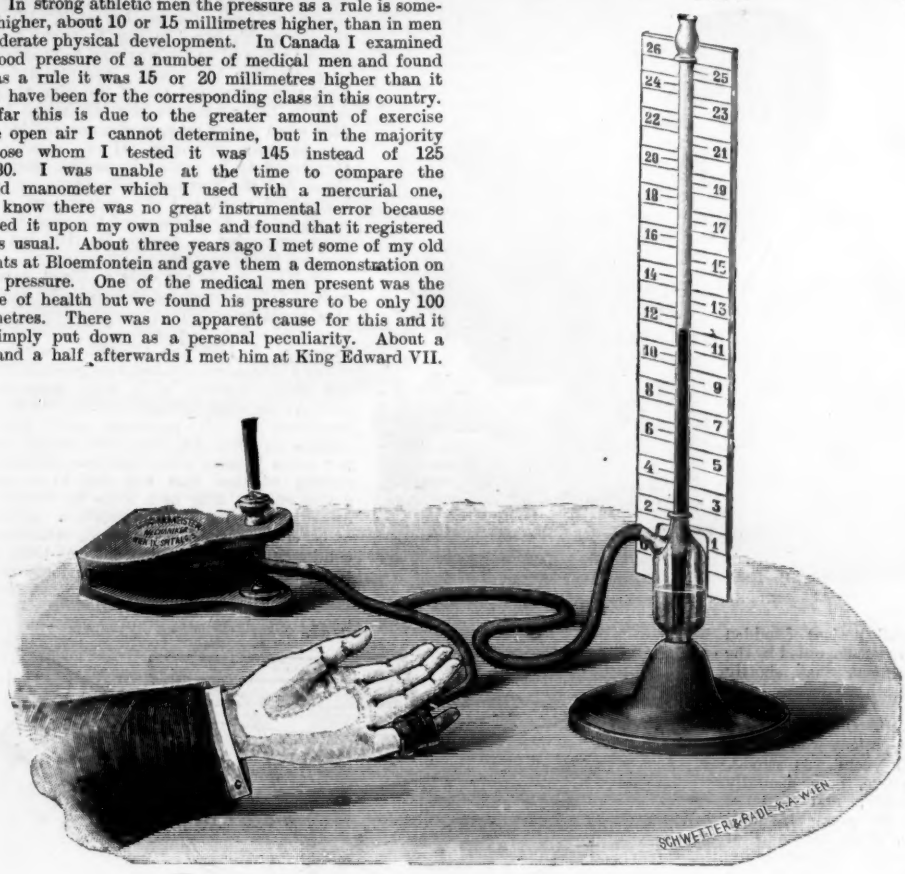
FIG. 6.



Most recent form of von Basch's sphygmomanometer. (Messrs. Down Bros., 21, St. Thomas's-street, S.E.)

or 15 centimetres lower than the corresponding pressure in men. In strong athletic men the pressure as a rule is somewhat higher, about 10 or 15 millimetres higher, than in men of moderate physical development. In Canada I examined the blood pressure of a number of medical men and found that as a rule it was 15 or 20 millimetres higher than it would have been for the corresponding class in this country. How far this is due to the greater amount of exercise in the open air I cannot determine, but in the majority of those whom I tested it was 145 instead of 125 or 130. I was unable at the time to compare the aneroid manometer which I used with a mercurial one, but I know there was no great instrumental error because I tested it upon my own pulse and found that it registered 125 as usual. About three years ago I met some of my old students at Bloemfontein and gave them a demonstration on blood pressure. One of the medical men present was the picture of health but we found his pressure to be only 100 millimetres. There was no apparent cause for this and it was simply put down as a personal peculiarity. About a year and a half afterwards I met him at King Edward VII.

FIG. 7.

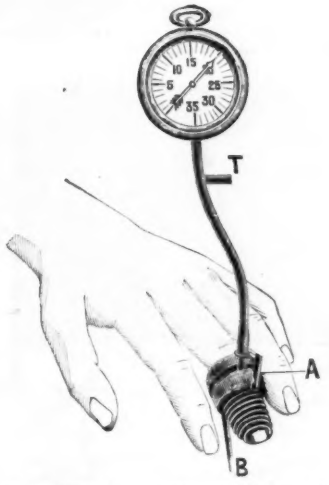


Gaertner's tonometer.

Sanatorium at Midhurst and he told me that about two months after I had taken his blood pressure he developed symptoms of phthisis and had come home in order to undergo a cure at the sanatorium. I have not sufficient data to justify a generalisation, but the coincidence in this case struck me as very remarkable, and I think it may be well to direct attention to an abnormally low blood pressure as a possible premonitory symptom of phthisis. The blood pressure is apt to fall much below the normal in cases of general debility from overwork, underfeeding, and especially from acute disease. After influenza the fall is sometimes very notable, and although it may be partly dependent on diminished innervation of the peripheral vessels I think it is on the whole rather due to cardiac weakness.

In cases of low pressure we naturally use abundant food, especially animal food, meat extracts, strong soups, gentle exercise, with plenty of open air and sunshine if it can be got. General tonics, as iron, arsenic, malt, cod-liver oil, hypophosphites, glycerophosphates, &c., are useful, and as cardiac tonics, strychnine, strophanthus, digitalis, and caffeine. But the warnings given by the sphygmomanometer are much more important in cases of increased than of diminished tension, for the general symptoms in cases of diminished tension are usually such as to indicate in no uncertain manner the necessity for a tonic treatment. But it is very different in the case of raised tension, for the high pressure within the blood vessels frequently gives rise to a sense of power and a desire for action both physical and mental, which imparts to the patient a feeling of well-being and makes him scout the idea of the necessity for care. Not

FIG. 8



Mode of using Gaertner's tonometer, portable form. A is the pressure ring. B, The rubber rings or tubing to render the end of the finger bloodless. T, Tube leading to the pressure bag.

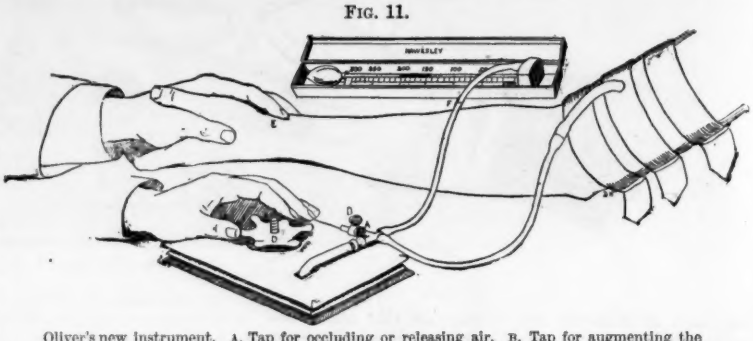
FIG. 9.

Riva-Rocci's sphygmomanometer.

infrequently notices of sudden death are accompanied by the announcement that shortly before death the deceased had said that he felt extraordinarily well. On one occasion I saw a patient who though aged 76 years was strong, erect, active, both mentally and bodily, and full of schemes for work. He had, however, slight atheroma of the aorta, hypertrophied heart, and a blood pressure of 180 millimetres. I prescribed nitrite of sodium for him and gave him good advice, but I felt that with such high tension his life was in such danger that I sent to his medical attendant one of Potain's instruments to watch the blood pressure. Instead of going home as I expected, the patient stayed in London for another week. When returning to his home in the North of England he was taken ill on the way and he died without ever reaching his house. Patients with such high tension remind me of the plan that was said to be pursued on the Mississippi in the days when racing between steamers on that river was so much in vogue. If one steamer was threatened to be passed by another they sometimes fed the furnaces with bacon and ham instead of wood and the captain sat on the safety-valve. By this method the steamer sometimes succeeded in passing its rival but often blew up in the process.

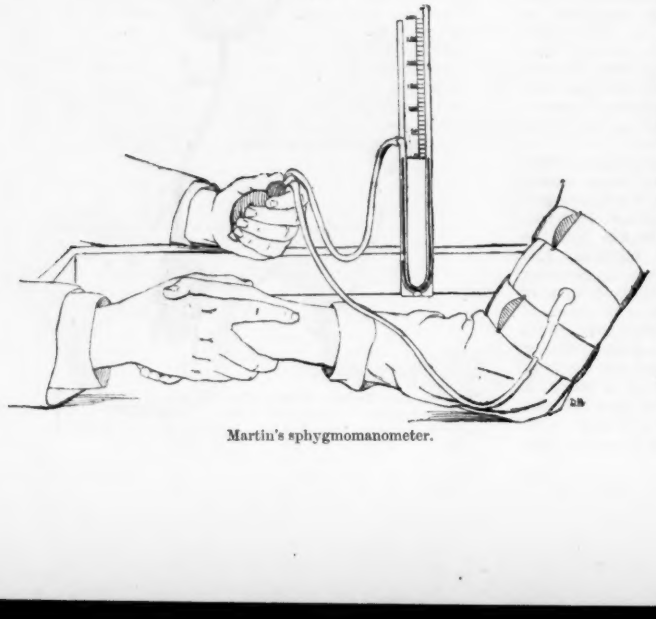
High tension is not only a direct cause of cardiac failure or ruptured vessels in itself; it also produces atheroma of the arteries, and by thus weakening them renders them more liable to break. In 1894 and 1895 Oliver and Schäfer showed that adrenalin had the power of raising the blood pressure to a most extraordinary extent. In 1903 Josué found that when small injections of this substance were given to rabbits on alternate days for several weeks the aorta became atheromatous. He was uncertain whether this was due to a specific action of the drug as a toxin or whether the atheroma was due to high pressure. A number of other observers have repeated, extended, and confirmed Josué's results. Some of them think that the atheroma is due to a toxic action, while others who obtained atheroma after the

FIG. 11.



Oliver's new instrument. A, Tap for occluding or releasing air. B, Tap for augmenting the oscillations of the fluid index. D, Screw for regulating the pressure in the air-bag. F, The palpating finger. F. The sphygmomanometer.

FIG. 10.



Martin's sphygmomanometer.

administration of tobacco, digitalin, strophanthin, and adonidin, all of which raised the tension, concluded that the high pressure within the vessels is a direct cause of the atheroma. A very good abstract of the literature of the subject is given by Dr. G. R. Rickett, who made a number of experiments not only with adrenalin, but with squill, barium chloride, tobacco, and nicotine. All these raise the blood pressure and he considers that the high tension is the direct cause of atheroma (Fig. 16). He agrees with the suggestion of Manchot that rupture of elastic fibres is the primary cause of arteriosclerosis or arterio-capillary fibrosis and of atheroma (Figs. 17, 18, and 19). In arteriosclerosis the fractures are single, separate, and general; in atheroma they are multiple and aggregate. He considers that this suggestion sufficiently explains the patchy nature of the disease, those parts of the arterial wall being the first to suffer where the stress is greatest or where they are least protected. He thinks that no irritant action can produce a disease of this nature,

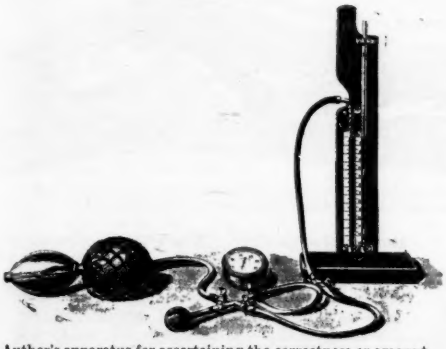
for the injection of potassium cantharidate, which is a powerful irritant but does not cause a rise of blood pressure, produces no atheroma. The fact that the pulmonary artery remains free from any disease after the injection of drugs which raise the pressure is a further proof that the disease is really due to pressure, because the pressure in the pulmonary artery is never raised to anything like the same extent as that in the aorta by any of the drugs which have been experimented upon.

FIG. 12.

Author's arrangement for using a broad Riva-Rocci band with von Basch's or Potain's sphygmomanometer instead of a mercurial manometer.

Several authors have ascribed the patchy nature of the atheromatous affection to the action of the drug on the vasa vasorum. This idea is rejected by Rickett who says that no change has ever been found in the vasa vasorum, and he thinks there are no facts to support the hypothesis. At the same time it seems to me that a patchy alteration in the wall of the aorta can hardly be explained by general strain which ought to effect the whole of the vessel equally unless we take into consideration the effect that such strain would have upon

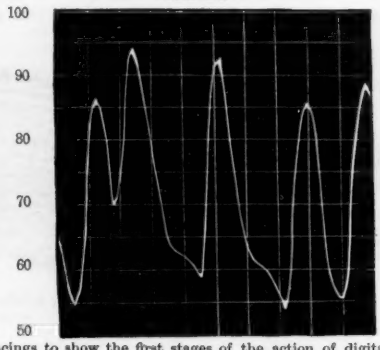
FIG. 13.



Author's apparatus for ascertaining the correctness or amount of error in an aneroid sphygmomanometer. By means of a three-way stopcock both the aneroid and a mercurial manometer are put into communication with a pressure bulb of a spray apparatus. The pressure is then raised 5 mm. at a time and the readings of the mercurial and aneroid compared at each pressure show the amount of variation between them and the corrections necessary in the readings of the aneroid.

the nutrition of the vessel. Now Ludwig and his pupils found in perfusion experiments, that when a stream of blood was allowed to pass under constant pressure through the vessels, the resistance to the pressure gradually became greater and œdema of the tissues appeared. Kronecker and Hamel, making similar experiments upon the flow of nutrient fluid through the blood-vessels of the frog, found that when the flow was interrupted rhythmically by means of a stopcock, more fluid passed through than when the flow was continuous and no œdema appeared. The explanation they gave of the advantage of the discontinuous flow is that the alternate movements of expansion and contraction maintain the elasticity of the arteries and the pauses between each systole serve for recuperation of their muscular walls. Cardiac pulsations in a living animal act as a kind of internal massage to the vessels and maintain the elasticity and contractility of the arterial walls. The way in which self-massage of the arteries occurs will be evident from Fig. 20. Each artery has a sheath of unyielding fibrous tissue which usually incloses also a vein and lymph space. Each time the artery is distended by the systole of the heart it tends to drive out both venous blood and lymph and the return of these being prevented by the valves in the veins and lymphatics, a suction-action is exerted on the vasa vasorum at each diastole. When the arterial pressure is high the movements of the artery become smaller and smaller and thus the condition within them approaches more and more to that of a continuous current. The self-massage of the arteries is thus decreased and their nutrition consequently lessened (Fig. 21). We can thus see how necrotic patches may depend upon the distribution of the vasa vasorum and on interference with the circulation

FIG. 14.



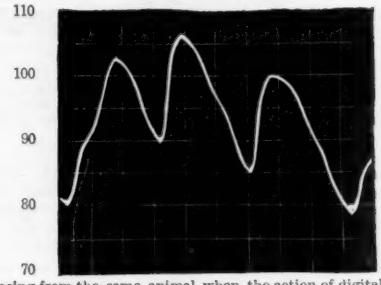
Tracings to show the first stages of the action of digitalis. Brunton and Meyer—Tracing of the oscillations of blood pressure in a dog. There are nearly five beats of the heart in the tracing and the pressure falls to 55 mm. of mercury and rises to 94.

through them by high tension quite apart from the action of any toxin.

Whether this explanation be right or not it seems to be proved by experiment that high tension *per se* will lead to the production of arterio-sclerosis and atheroma, and therefore it is of the utmost importance to ascertain the tension of patients in middle life and to put them on a suitable *régime* so as to prevent its rising. By detecting the rise just as it begins and by the timely use of suitable measures the tension may be kept down, changes in the arteries prevented, health preserved, and life prolonged.

We do not yet know precisely what the substances are which tend to raise the arterial tension during advanced life. The extraordinary power of extracts of the suprarenal capsules to raise blood pressure makes it probable that some

FIG. 15.



Tracing from the same animal when the action of digitalis is more pronounced. The difference between this and the previous tracing consists in slowing of the pulse, in smaller oscillation and rise in tension.

products of internal secretion and tissue metabolism tend to cause contraction of the vessels with rise of blood pressure. In addition to this it is quite possible that the products formed from an albuminous diet during digestion in the intestine may have a somewhat similar effect, and Crofton found that hypoxanthine, which is one of the purin bodies

and is a constituent of beef extract, does produce atheroma in rabbits when administered to them for some time.

The first indication in treating rise of tension would therefore be to diminish the supply of proteid food, and especially of butcher's meat, and to put the patient on a diet of bread, vegetables, and fruit, with milk, butter, and fat bacon. If the tension is not excessively high, eggs in any form, fish, and fowl may be allowed. Alcoholic beverages should be used sparingly if at all, and the same is true of tea and coffee. Tobacco *per se* will produce atheroma in animals, and nicotine is almost the only drug which nearly equals adrenalin in its power to raise blood pressure. In cases where the tension is at all high, tea, coffee, and tobacco should all be prohibited, but when the tension is only moderate, the extent to which they may be allowed must depend upon the individual case. It is best to drink very little with meals for the two-fold reason that drinking along with food is apt to lessen the completeness of mastication and much fluid dilutes the gastric juice and slows digestion. The best time to drink is about three hours after a meal and just as the food is passing from the stomach into the duodenum. Fluid taken at this time is quickly absorbed and tends at the same time to remove the remnants of the previous meal from the stomach. Either plain water, hot water, or one of the various waters so much recommended in gout may be taken. Moderate exercise without strain is beneficial, but all strain, such as lifting weights, pulling buckles when packing portmanteaus, and sudden exertion of all kinds should be avoided. Sudden exertion will raise the blood pressure very greatly, but steady continued exertion, on the other hand, tends rather to lower it, as the flow of blood through the muscles becomes freer from their action. Steady mental work in moderation is good, but irritation and emotion are bad. I have already mentioned that in my own case inability to keep an appointment raised my tension by one-third, and actual anger is the most dangerous emotion of all. Constipation must be carefully avoided, as it tends to raise the blood pressure, and purgatives tend to lower it, as will be seen from the accompanying tracings. (Figs. 22 and 23.) Mercurials seem to have a specially beneficial action, and half a grain or a grain of calomel or three to five grains of blue pill or a combination of the two once or twice a week, followed by a saline in the morning, tends to keep the pressure down. Iodide of potassium in doses from one to ten grains three times a day, according as it suits the patient, is useful, and may be given for a couple of weeks a a time, left off for a week, and then again given for two weeks more. In this intermittent fashion it may in some cases be continued with advantage for months together. The hippurates of ammonium and sodium recommended by Oliver in doses of from five to 10 grains and benzoate of sodium in from five to 30 grain doses have a somewhat similar action. I very commonly use the nitrite of sodium, beginning with a dose of half a grain and gradually increasing it to four or five grains three times a day. In some cases I find that the nitrite of sodium in half to two grain doses with 15 or 20 grains of nitrate of potassium and sometimes with ten grains of bicarbonate of potassium as well, given in a tumblerful of water every morning, tends to keep the pressure from rising. I have been much interested in one patient who consulted me 12 years ago for cardiac pain and has kept fairly well ever since by the use of nitrate of potassium, nitro-glycerine, and nitro-erythrol. He is a man of great intelligence and has made interesting observations upon himself. He suffered from bleeding at the nose but a powder of 20 grains of nitrate of potassium with half a grain of nitrite of sodium stopped the bleeding. Whenever he discontinued the medicine, however, the bleeding recommenced. After a while the small dose of nitrite of sodium ceased to control it but on increasing the dose the bleeding of the nose stopped again. During all this time the slight cardiac pain has not increased, but in cases where the tension is already high and angina pectoris actually exists the attacks may sometimes be warded off for years by the use of vascular dilators. One patient of mine who was himself a doctor was able to keep himself free from attacks of angina by the daily use of nitro-erythrol for three or four years, beginning with half a grain three times a day and gradually increasing it. There is one class of case that requires particular

FIG. 16.

Aorta of a rabbit treated by 28 injections of adrenalin. It shows numerous plaques scattered along the aorta (vide Figs. 17 and 18). (After Rickett. Journal of Pathology and Bacteriology, vol. xii., 1907.)

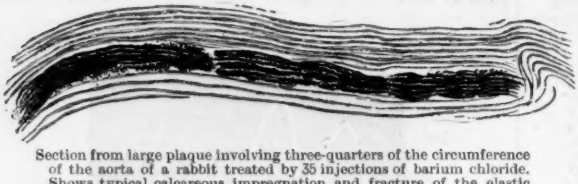
FIG. 17.

Section of plaque shown in Fig. 16. Shows extensively calcified zone in medial coat. Complete fracture has occurred in two places. (After Rickett.)

FIG. 18.

Section of one of the plaques shown in Fig. 16. Shows a calcified mass replacing the elastic fibres of the media. (After Rickett.)

FIG. 19.



Section from large plaque involving three-quarters of the circumference of the aorta of a rabbit treated by 35 injections of barium chloride. Shows typical calcareous impregnation and fracture of the elastic fibres. (After Rickett.)

FIG. 20.

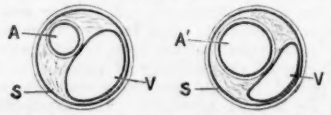
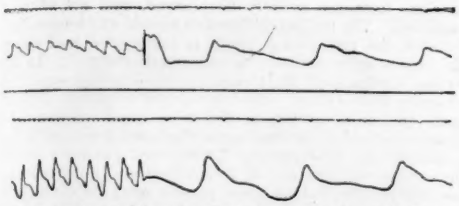


Diagram to show the effect of the arterial pulse in aiding the onward flow of venous blood and lymph by a process of what may be called self-massage. A is an artery during diastole. V is a vein filled with blood. S is the fibrous sheath which incloses the artery, the vein, and the lymph space around them. A' is the artery distended with blood by the ventricular systole. As the sheath S is unyielding the distension of the artery forces the blood out of the vein and the lymph out of the lymph space, and as the backward flow of both is prevented by the valves of the veins and lymphatics the circulation is increased in both.

attention—viz., those of high tension where the heart is beginning to fail, and such symptoms as irregularity or intermission of the pulse, giddiness, inability for exertion, shortness of breath, and even œdema of the ankles, are beginning to make their appearance. In such cases cardiac tonics, such as strophanthus, digitalis, strychnine, and

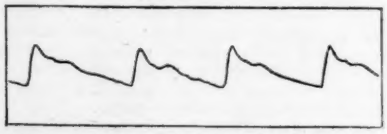
FIG. 21.



Pulse tracing showing the effect of massage and graduated movements. Each tracing is taken partly with a slow and partly with a quick movement of the sphygmograph. The upper shows high tension and a feeble heart; the lower shows less tension and a stronger heart. These tracings I owe to the kindness of Dr. Gustav Hamel, to whose treatment I had recommended the patient.

caffeine, require to be combined with vascular dilators, whilst rest, comparative or absolute, must be insisted upon as more important than any medication. Distension of the stomach by flatulence seems to increase the pain in angina in two ways by tilting the heart and thus causing mechanical interference of the circulation and also by reflex action

FIG. 22.



A sphygmographic tracing from the pulse of a healthy man before taking a purgative. The somewhat oblique rise, slow descent, and comparatively slight dichrotism of the pulse wave indicate that the arterial tension is moderately high.

through the vagus (Fig. 24). Frequently patients are greatly relieved when they are able to pass flatus. I find a very useful mixture for such cases is:—

Liq. trinitrin., ♏ ss.-iij.
Spt. ammon. aromat., ♏ xv.-3j.
Spt. æther. co., ♏ v.-x.
Spt. chlorof., ♏ v.-x.
Tinct. cardamom. co., ♏ x.-xxx.
Aq. menth. pip., ad ℥j.

This draught may be repeated every quarter of an hour till relief is obtained or until the trinitrin causes giddiness. When the pain is very acute inhalation of nitrite of amyl is the quickest means of relieving it, but in some cases it fails and then an inhalation of chloroform may be used.

FIG. 23.

A tracing from the same person after the use of a purgative. The more abrupt rise and quicker fall and decided dichrotism of the pulse wave, as well as the greater frequency of the pulse as indicated by the shortness of the waves, show that the tension in the arteries is much less than in Fig. 22.

The easiest way to give it is to pour a few drops upon a piece of blotting-paper at the bottom of a tumbler and let the patient take it himself. As soon as it begins to take effect the hand falls and the inhalation ceases. The inhalation of iodide of ethyl sometimes answers, but it is more generally useful in spasmodic asthma than in angina pectoris. In some cases recourse must be had to subcutaneous injection of morphine, and although this may not be altogether without risk it must be remembered that the question is not one of absolute but of comparative risk. The patient is liable to die from the attack at any rate, and in all probability the injection of morphine will not only relieve his pain but give him a better chance of life. Even when death occurs after the injection of morphine, as it sometimes does, it is to be remembered that the patient would in all probability have died without the drug and unless the dose was so large as to be dangerous in itself any untoward results are to be ascribed to the disease rather than to the remedy. Where the pain is excessive even morphine may fail but in those cases the administration of chloroform subsequent to the injection will sometimes relieve. The chloroform anæsthesia passes into the morphine narcosis, pain is relieved, and danger to life may be averted for the time, although in such cases where the severity of the disease is so great a subsequent attack after a very short interval may prove fatal. But distressing as angina pectoris is a still more distressing condition is that of some cases of paralysis where the patient is unable to help himself or even to express his desires or wants and becomes a burden both to himself and to others. Medicine

FIG. 24.

Diagram to show the effect of flatulence on the heart. The heavy lines show the normal position of the viscera. The dotted lines show their position when the stomach is over-distended.

is of little avail when such a condition has actually occurred and therefore it is that the routine examination of blood pressure in all cases, or at any rate in all patients above middle life, is so necessary. For it is only by taking it in time that high tension may be prevented from producing vascular disease and thus preserving the integrity of the brain and mental functions, of averting painful attacks of angina pectoris, and not merely prolonging life but of lengthening the period of bodily and mental activity.

TWO CASES OF MULTIPLE RODENT ULCER:

WITH A NOTE ON THE POSSIBLE RELATIONSHIP BETWEEN MULTIPLE RODENT ULCER AND EPITHELIOMA ADENOIDES CYSTICUM OF BROOKE.

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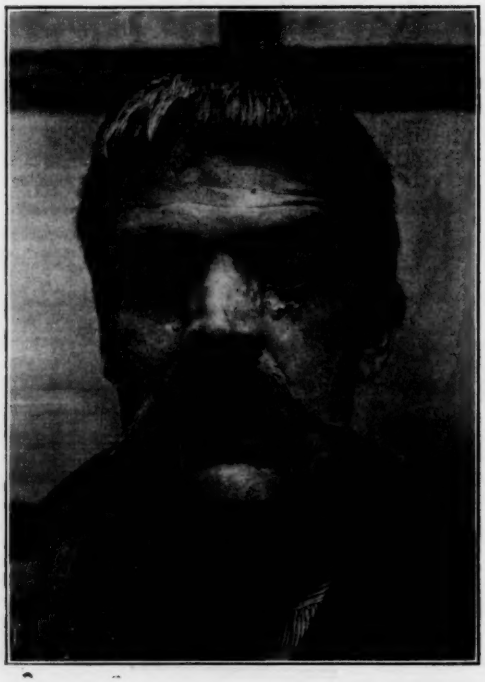
THE objects of this article are: (1) to report two cases of multiple rodent ulcer, each with an unusually large number of lesions; (2) to recall three closely similar cases which have been recorded as examples of Brooke's epithelioma adenoides cysticum; (3) to enumerate the more typical of the published cases of Brooke's epithelioma adenoides cysticum and to point out the characters which distinguish them clinically from cases of multiple rodent ulcer; and (4) while clinically differentiating the typical examples of Brooke's epithelioma adenoides cysticum from multiple rodent ulcer

to call attention to the strong resemblances in the histological features of these two affections.

I. *Two cases of multiple rodent ulcer with an unusually large number of lesions.*—Cases of rodent ulcer in which there are two lesions, or even three, are not very rare. Bowlby, among 66 cases, met with two which had two lesions. Crocker says that he has seen two ulcers twice and three ulcers once. Dubreuilh, among 110 cases, saw three cases each with two ulcers and one with three. Dubreuilh also records a case with four lesions and another with five lesions, Colcott Fox one with five, and Bowlby one with seven. I am unable to find any case, reported as rodent ulcer, with more than this number of lesions, but in the two cases which I am about to relate there were 20 or more in one instance and 13 in the other.

CASE 1. *Mr. W. Bruce Clarke's case.* (This case was demonstrated by Mr. Bruce Clarke at a meeting of the Clinical Society of London on April 24th, 1903, and the following report of the case is printed in the Transactions of the Clinical Society, Vol. XXXVI., 1903, p. 271.) (Fig. 1.)

FIG. 1.



—"Daniel C., æt. 37. History of condition. 2½ years ago he first noticed a small red spot near the outer canthus of the left eye, which gradually grew in size. Seven months later a second spot occurred near the outer canthus of the right eye and increased slowly in size. At about the same time another ulcer appeared on the forehead above the right eyebrow. This one has healed of its own accord but has left a scar exactly similar to the scarring which has occurred round the ulcer underneath the eye. There is another ulcer on the inner side of his nose and one on the under lip, and another on the side of his neck; but he cannot give any accurate account of the dates at which these appeared. *Present condition.*—In addition to these six patches which have been already described there are numerous pimples on his face. They vary from the size of a millet-seed to that of a split pea. As many as 20 or 30 of these can be easily counted. Were it not for the fact that he states the ulcerated patches all began with simple pimples they would perhaps barely deserve attention as they have the appearance of small sebaceous glands in which the ducts are blocked. Two of these pimples have been excised and examined microscopically, as well as pieces from the six ulcerated patches above alluded to. They one and all exhibit the microscopical appearance of typical rodent ulcers and are displayed under the microscope. The patient is now undergoing electrical treatment with x rays four times a week and is deriving considerable benefit from it. The ulcers are healing rapidly. N.B.—The patient remained in hospital about six weeks after he was shown, during which time the ulcers completely healed; but the pimples, though they improved and diminished in size, and in some instances entirely disappeared, had not altogether vanished. The patient declined to remain any longer."

Later, the patient was again in the hospital and many of the lesions were excised and others were scraped. In 1907, by the kindness of Mr. Bruce Clarke, I had an opportunity of seeing this patient. There were then altogether 17 lesions upon the face, varying in size from small nodules of the dimensions of a pin's head up to ulcerated lesions of one and a half inches in diameter. There were also scars marking the excision or scraping of former lesions. For purposes of description the lesions then present may be divided into groups as follows:—

1. Six nodules, reddish in colour and semi-translucent, of the size of a large pin's head to that of a millet-seed, and distributed over the left cheek and the forehead.

2. Nodules of the size of a millet seed to that of a split pea, dull red in colour, raised, but flat on their surface, firm, and semi-translucent; a group of three upon the right temple at the outer angle of the orbit; two just below the left ala of the nose; one on the left upper eyelid; and one on the left brow.

3. Larger lesions, which have undergone treatment on a former occasion; two on the forehead; one on the left ala of the nose. These were from a quarter to half an inch in diameter, with a central scar and a marginal rolled edge. (The photograph was taken before these had recurred and shows scars only at these points.)

4. An irregularly shaped lesion, partly scarred, partly ulcerating, and partly crusted, extending from the inner canthus of the right eye on to the right cheek, here and there showing a raised nodular edge. This lesion measures 1¾ inches in length by ¾ inch in diameter.

5. A similar ulcer, 1 inch by 1½ inches, involving the inner canthus on the left side, the lower lid, and the left cheek.

6. About the forehead and cheeks there are scattered a few milia, but there are none on the lesions themselves.

Histology.—From time to time lesions from this case have been examined microscopically and the typical appearances of rodent ulcer have always been found. In a section of one of the larger lesions, kindly lent to me by Mr. Onslow Ford, there are large masses of cell growth in the corium quite characteristic of rodent ulcer. They present a marginal palisade layer of oval cells and the body of the mass is made up of irregularly oval cells with deeply staining nucleus and with scanty and badly staining protoplasm. Here and there in the masses there are cavities or cysts containing broken-down cell débris. The cell masses are separated from one another by a highly cellular connective tissue and towards the margin of the growth there are here and there large collections of plasma cells. Sections from a small nodule were made by Mr. L. Noon and some drawings from these sections are reproduced in a paper by him in the *Journal of Pathology and Bacteriology*, Vol. XII., 1907 ("Histological Notes on the Origin of Rodent Ulcer").

CASE 2. *Dr. J. J. Pringle's case* (Fig. 2).—The patient, a man, aged 67 years, was an in-patient at Middlesex Hospital in 1897. There were *13 lesions:* (*a*) Five millet seed to rice-grain sized circular or oval nodules, three on the forehead, two on the left temple; (*b*) four circular nodules with pearly raised margin and depressed red centre of the size of a split pea—one on the lower lid (right) near the inner canthus and one on the left upper lid and two just above; (*c*) on the left cheek below the external angle of the orbit a crusted lesion a quarter of an inch in diameter; (*d*) on the left cheek a lesion measuring 1 inch by ¾ inch, having a margin made up of separated rice-grain sized nodules, with here and there crusts between, and a central white scar; (*e*) on the left cheek between the last lesion and the lobe of the ear a raised flat plateau measuring ¾ inch by ½ inch, rose-coloured, with a network of dilated veins over its surface; and (*f*) a large ulcer on the back with a narrow rolled margin. The lesions were excised and the larger ones were grafted.

Histology.—The microscopic finding was rodent ulcer. The

lesion in front of the left ear showed large cysts, but the others were typical rodent.

II. The following three cases, recorded as examples of multiple benign cystic epithelioma (epithelioma adenoides cysticum of Brooke), have many features which distinguish

FIG. 2.

(From a water-colour drawing kindly lent by Dr. Pringle.)

them from the more typical examples of Brooke's affection and which suggest that they are closely related to multiple rodent ulcer, if not actually such.

CASE 1. *Dr. Stelwagon's case* (Fig. 3).—This case (an adult

FIG. 3.

male) is mentioned by Stelwagon in his book on "Diseases of the Skin" under the heading of "Multiple Benign Cystic Epithelioma," and there are two reproductions from photographs of the case.[1] The picture here reproduced shows eight or nine apparently millet-seed sized to small bean sized smooth flat raised growths about the forehead, the temples, and the sides of the nose. Below the right eye there is a large irregular ulcer with a raised margin. Stelwagon remarks that "the large or bunched lesions exhibited surface degeneration with ulceration and approached closely to the rolled, pearly-bordered superficial epitheliomata." He also says, when discussing the pathology of epithelioma adenoides cysticum, that its relation to superficial epithelioma or rodent ulcer is probably a close one, and although the lesions are thought benign and to show no destructive changes the exceptional cases of White, Jarisch, and his own furnish, in his judgment, connecting examples.

CASE 2. *Dr. J. C. White's case* (*American Journal of Cutaneous Diseases*, 1894, Vol. XII.) (Fig. 4).—The patient was a woman, aged 45 years. The first lesion appeared when she was 22 years of age.[2] There were present at the time of examination as many as 50 lesions on the face and there were a few lesions on the upper trunk and arms (none on the scalp). The lesions varied in size from small pin-head to pea-sized skin-coloured nodules to tumours half-an-inch in diameter. The larger lesions were redder, some were

FIG. 4.

depressed in the centre, others were covered with brown crusts, and some were distinctly of rodent ulcer type. One broken-down lesion measured 1 inch across. There were no milia and none of the lesions had a translucent look, nor were there marked telangiectases. White calls attention, as a most remarkable feature, to the transformation in the oldest and largest lesions. Three or four of these had in recent years taken on the appearance of ordinary epitheliomata in several of its advanced clinical phases—viz., scaling, crusting, and open deep ulcerative destruction of the whole skin. He remarks that if any of the latter were alone under observation no other diagnosis than ordinary epithelioma would be justified, and that ten years ago, when this patient was 35 years old, every lesion would have appeared as "benign" as all those described in all other recorded cases (of Brooke's epithelioma adenoides cysticum), as the great majority, in fact, of those in his own case. He suggests that the natural tendency of such modified epithelial tissue out of place to self-destruction will probably assert itself when it has encroached upon the normal cutaneous structures in such large accumulated masses as in this case, or when after middle life the vitality of the elements of both is impaired.

[1] Dr. Stelwagon has given me permission to make use of these photographs and for this purpose he very kindly sent me the original photographs, one of which is reproduced here.

[2] With Dr. J. C. White's kind permission I am able to reproduce the photograph of this case.

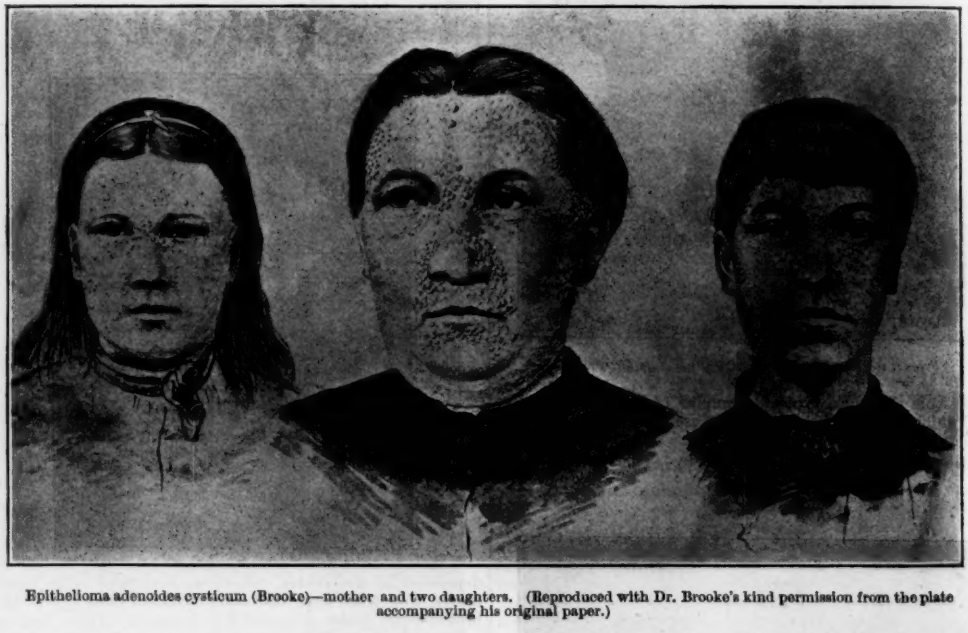
Histology of White's case.—The larger lesions showed epithelial masses in the corium arranged in islands and elongated tracts, the latter often suggesting the course of a sweat duct (i.e., with the low power). Under the high power the growth was made up of compact masses of epithelial cells and connected and intermingled in a very complicated way. In their midst were cysts with granular or homogeneous substance and in parts ill-stained epithelial cells. In a few cysts there was a corneous substance in addition to the colloid substance. In all of the tumours a connection of the epithelial masses and tracts with the lower cells of rete could be demonstrated in some of the sections. There is a reproduction of a histological section the appearances of which strongly suggest those of rodent ulcer.

CASE 3. *Dr. Jarisch's case* (*Zur Lehre von dem Haut-geschwülsten* (*Hæmangio-endothelioma*), *Archiv für Dermatologie und Syphilis*, Vol. XXVIII., 1894, p. 164. Case 2. *Epithelioma adenoides cysticum, rodent type*).—The patient was a man, aged 22 years. The eruption began to appear when he was 14 years of age. At the time of examination there were numerous crusted patches which suggested impetiginous lesions but which on removal of the crusts showed ulcerations; larger rodent-ulcer-like lesions (the largest 1 centimetre by ½ centimetre), one at the inner canthus, one below the eye, one at the ala of the nose; and isolated papules disseminated on the eyelids, between the brows, and on the temples. On the eyelids there were also numerous yellow milia. Jarisch says that the clinical diagnosis of this case presented great difficulties and was only made certain by microscopical examination which showed the identity of the case with those described by Brooke as epithelioma adenoides cysticum. It differed only in one respect—namely, in the formation of ulcers, a difference which, Jarisch remarked, had not the importance it might at first appear to have. Histologically there were long cellular processes, broad, nodulated, with numerous sinuosities, with marginal palisade cells, and with cysts here and there. Jarisch believed these processes to grow from the hair follicle and suggested the name of "tricho-epithelioma papulosum multiplex" for Brooke's type, and of "tricho-epithelioma papulosum rodens" for the ulcerating type.

Anyone who studies the reports of these three cases—of Stelwagon, of White, and of Jarisch—and who examines the photographs of Stelwagon's and of White's cases must admit, I think, their close resemblance to the two cases which I have here reported as examples of multiple rodent ulcer. Indeed, Stelwagon and White themselves point out the close resemblance of their cases to rodent ulcer. In the writer's opinion there seems to be greater reason for regarding these three cases as rodent ulcer than as examples of Brooke's affection, and in the following section the characters of epithelioma adenoides cysticum will be briefly summarised in order to contrast them clinically with those of the five cases already discussed.

III. *Epithelioma adenoides cysticum of Brooke.*—In 1892 Brooke of Manchester described four cases of multiple cutaneous tumours, occurring mainly about the face, of epitheliomatous structure, but of benign nature. For many years this affection was confused with another type of multiple benign tumour of the skin which was first described by Kaposi under the title of "lymphangioma tuberosum multiplex," and which has since been variously named syringadenoma, hæmangio-endothelioma, nævi-cystepitheliomatosi disseminati, syringo-cystadenoma, &c. It has been conclusively shown by Unna, however, that Brooke's affection is quite distinct from the Kaposi type both in its clinical and in its histological features. The only recorded cases which actually correspond to Brooke's epithelioma adenoides cysticum are the following:—

FIG. 5.



Epithelioma adenoides cysticum (Brooke)—mother and two daughters. (Reproduced with Dr. Brooke's kind permission from the plate accompanying his original paper.)

1. *Adenoma of the sebaceous glands of face and scalp* (misnamed). Balzer and Ménétrier. *Archives de Physiologie*, 1885, p. 565. (Mother and daughter.)

2. *Adenoma of sweat glands* (also misnamed). Perry. "International Atlas of Rare Diseases of the Skin," plate ix., p. 3.

3. *Multiple benign cystic epithelioma.* Fordyce. *Journal of Cutaneous and Genito-Urinary Diseases*, Vol. X., 1892, p. 459. (Mother and daughter.)

4. *Epithelioma adenoides cysticum* (*Brooke*). Csillag. *Archiv für Dermatologie und Syphilis*, June, 1906, p. 163. (Mother and daughter.)

Brooke's own cases (mother and two daughters and one other case) were published in the *British Journal of Dermatology*, Vol. IV., p. 269.

All of these cases had the following features in common: 1. They all occurred in women, and all—except Perry's case and one of Brooke's cases—in mother and daughter. 2. The lesions consisted of pearly-white or faintly bluish

or yellowish nodules, pin-head to pea sized, appearing in early life, and seated mainly upon the face, being grouped especially around the eyes, on the bridge of the nose, in the nasal furrows, and around the mouth. (Fig. 5.) In some cases lesions were present also upon the back between the shoulders, and on the scalp. In most cases the lesions were very numerous and distributed symmetrically. 3. The lesions showed no tendency to crust or to break down nor to enlarge beyond the size of a split pea—i.e., there was no tendency to become locally malignant. 4. Milia occurred on the lesions and also on other parts.

If we compare now the cases of Bruce Clarke and of Pringle here reported as examples of multiple rodent ulcer and the closely similar cases of Stelwagon, White, and Jarisch with these cases of epithelioma adenoides cysticum of Brooke we find that clinically they resemble one another only in that there are multiple tumours upon the face, especially about the eyes, nose, and mouth, and occasionally also upon the back, and in that they may be associated with milia. But they differ from one another in the following points:—

In those styled Multiple Rodent Ulcer or of Multiple Rodent Ulcer Type.	*In Epithelioma Adenoides Cysticum.*
1. All cases (with one exception, viz., White's case) occurred in adult males.	1. All occurred in women and the lesions appeared in childhood.
2. Not hereditary.[3]	2. Generally in mother and daughter.
3. Distribution of lesions irregular.	3. Distribution of lesions markedly symmetrical.
4. Lesions of widely different sizes.	4. Fairly uniform size of lesions.
5. Tendency of lesions to increase in size and to break down, i.e., to become locally malignant.	5. No tendency of the lesions to enlarge beyond the size of a split pea, nor to break down, i.e., to become locally malignant.

In their clinical features there is, then, very little to indicate a possible relationship between these two groups of cases. One case only, that of White, might be looked upon as a possible connecting link. The patient was a woman [4] and the lesions were so very numerous in the early stage that, as White remarks, the case would then have been regarded as a typical example of Brooke's affection. In the later stages the lesions enlarged and ulcerated, so that "if any of the latter were alone under observation no other diagnosis than ordinary epithelioma would be justified." In Bruce Clarke's case, too, there were very numerous (from 20 to 30) millet-seed to split-pea sized tumours at an early stage, only here already associated with ulcerating growths.

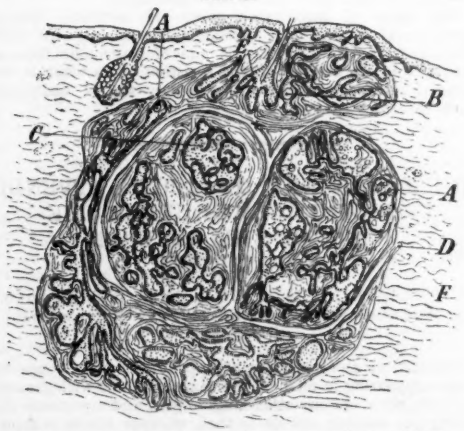
In the next section I shall compare the pathological appearances of rodent ulcer with those of epithelioma adenoides cysticum.

IV. A. *The histological characters of ordinary rodent ulcer* may be summed up as follows. There is a sub-epidermal growth made up of pear-shaped, irregular, or elongated and branched masses of cells, having a more or less regularly arranged marginal palisade layer with central oval cells showing a deeply staining nucleus and protoplasm somewhat scanty and staining badly, and rather smaller than normal prickle cells. In the larger masses there is a tendency in parts for whole groups of cells to stain badly, indicating a degenerative process, and cysts are sometimes formed by massive necrosis of the centre of an alveolar mass. Epidermic cysts may also be present, scantily in most cases, abundantly in others.[5] Another important feature of the rodent ulcer growth is that the epithelial cell masses are separated and surrounded by a stroma of highly cellular fibrous tissue.

From what part of the epidermis or its appendages the cell growth is derived is still in dispute, but the evidence is in favour of its origin from the basal layers of the epidermis or of the hair follicle. This view has been held by Tilbury Fox, by Colcott Fox and by Butlin; and the more recent researches of Dubreuilh also support it. L. Noon in a paper (already referred to above) has, as the result of his investigations, arrived at the conclusion "that there is very convincing evidence of the origin of rodent ulcer from the Malphigian layer of the epidermis near the neck of the hair follicle, and from the reflection of this layer which forms the outer root sheath of the hair."

B. *The histological characters of epithelioma adenoides cysticum* are as follows. The lesions (Fig. 6) present solid processes of epithelial cells springing from the epidermis or from the epithelium of the lanugo hairs and growing into the cutis in the form of finger-like prolongations and of club-shaped masses. These processes have a margin of palisade-like cells, continuous with the basal layer of the epidermis or of the outer root sheath. They are encapsuled by a highly cellular connective tissue. Lying in the prolongations and

FIG. 6.



Section of a nodule, showing the new growth completely surrounded by normal connective tissue. A, Epithelial "tract." B, Small cyst. C, Mass of epithelial new growth showing convoluted "tracts," and small foci of colloid degeneration, commencing cysts. D, Coating of fine connective tissue which practically capsulates the epithelial new growth. E, Two of the finger-like epithelial growths arising from a hair-sac. F, Normal connective tissue. (Reproduced from a coloured drawing accompanying Brooke's original paper.)

in the masses, but more especially in the latter, are cysts of circular or oval shape, filled with colloid matter and due to degeneration of the epithelial cells. Other cysts are also seen containing concentric layers of epithelium—corresponding to the small milia seen clinically.

Comparison of the histological features of rodent ulcer with those of Brooke's epithelioma adenoides cysticum.—Rodent ulcer and epithelioma adenoides cysticum have, then, these features in common. The lesion is made up of an epithelial growth derived from the basal layer of the epidermis or from that of the hair follicles. The growth is in the form of cell masses with a marginal palisade layer and central oval cells. There is a tendency to cyst formation in both—i.e., colloid cysts and epidermal cysts (or milia). In both the epithelial masses have new-formed encapsuling fibrous tissue. Here, however, the resemblance ceases and we find that, while the lesion of Brooke's disease is sharply circumscribed by a highly organised fibrous tissue, there is in the rodent ulcer a more highly cellular and, therefore, more actively growing fibrous tissue element, a plasma-cell exudation at the advancing margin, and outlying groups of epithelial cells invading the tissues beyond the main growth. These differences in the histological features correspond with, and explain to a certain extent, the differences in the clinical behaviour of the lesions—namely, that one is restricted or benign in its growth, while the other tends to enlarge and to involve and destroy neighbouring structures, or, in other words, is locally malignant. But of the essential cause of this difference in behaviour we are ignorant.

In conclusion, in these cases of multiple rodent ulcer of Bruce Clarke and of Pringle, and in the cases of Stelwagon, of White, and of Jarisch, do we see a connecting link between the common rodent ulcer and the multiple benign growths described by Brooke? Clinically there is a wide difference between the single locally malignant rodent ulcer of later

[3] It must be noted here, however, that White's case had two daughters who died quite young and who, it is conceivable, might have later developed the affection.

[4] See Note [3].

[5] See Dubreuilh's important paper (Annales de Dermatologie et de Syphilis, 4e serie, 2, 1901, p. 705). He records a large number of cases. He found cyst formation (both colloid and epithelial) in a large majority, more especially in nodular growths, which is the type of lesion more common in multiple rodent ulcer.

adult life and the innumerable benign growths of early life, often hereditary. But following these cases in series the difference does not seem so great; beginning with the single rodent ulcer, we then have cases with from two to five lesions, then the cases of Bruce Clarke, Pringle, Stelwagon, and Jarisch, then White's case (in its earliest stages apparently a typical example of Brooke's affection but later with lesions like rodent ulcer); finally we arrive at Brooke's epithelioma adenoides cysticum with innumerable lesions having no tendency to become locally malignant.

Histologically the lesions of rodent ulcer have many features in common with those of epithelioma adenoides cysticum, and they are probably derived from the same part of the epidermis. Pathologically they differ in that the one tends slowly to invade and to destroy the surrounding tissues, while the other has no such tendency.

The study of these rare cases of multiple benign epithelioma (epithelioma adenoides cysticum) in their relationship to rodent ulcer is one of particular interest in that it has a bearing on the question as to what is the essential difference between a benign and a malignant epitheliomatous growth.

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THE TREATMENT OF ACUTE APPENDICITIS AS IT COMES UNDER THE CARE OF THE GENERAL PRACTITIONER.

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ARTICLES on the treatment of appendicitis have appeared and are appearing in medical literature, perhaps with greater frequency than on any other single topic, and my excuse for writing yet another article is that, whereas almost without exception the writers on this subject are consultants who see hardly any cases unless and until they have developed symptoms which make the question of operation or no operation one of urgent importance, I have for ten years past had not only an experience of hospital cases but also in general practice have followed cases through from start to finish, have seen cases which at first looked as if pus would certainly form subside without operation, and others which at first looked trivial develop diffuse peritonitis for which immediate operation appeared to give the only chance of life.

When authorities differ so radically as they do with regard to the treatment of appendicitis it must follow that the practitioner will come to rely more and more on his personal experience, grounded on what seems most rational in the various methods advocated. And the first conclusion which will be reached is that no one method of treatment is applicable to all cases of appendicitis. Removal of the appendix the moment it is first found to be inflamed is possibly the most ideal treatment, but it is the ideal of an unattainable Utopia. Lots of cases are not seen at this early stage and of those which are a majority will subside within a few days and the practitioner who advocates "removal on sight" will soon get an unenviable reputation among his patients of being "too fond of the knife," the result of which will be that he will quickly have few patients left to influence for weal or woe. The advocates of "opium and nothing but water by the mouth" on the other hand will every now and again light on a case of gangrene with diffuse peritonitis, in which they will either have to alter their treatment or almost certainly lose the patient.

From the point of view of treatment, cases of appendicitis may be divided into three classes, each with its own appropriate treatment, and in this paper I propose to deal with these three classes in detail. It will, of course, be understood that there is no absolute distinction and that borderland cases must occur which it is most difficult to classify, but most cases will come easily under one of the following headings: (1) mild cases, in which there is tenderness over McBurney's point, but neither a "lump" nor the muscular rigidity characteristic of acute peritonitis; (2) more severe cases characterised by the presence of a definite firm, more or less irregular "lump" in the right iliac fossa; and (3) cases in which there is evidence of acute peritonitis and without the "lump" which indicates that the inflammation is well localised.

1. *Mild cases.*—When a patient presents the characteristic right iliac tenderness, however quiet the pulse and low the temperature, bed is the only safe place for him. No food whatever is also a good rule; plenty of hot water by the mouth, or barley water or albumin or plasmon water should be given, but nothing that can leave any residue. Many surgeons give a single dose of calomel to empty the bowel, but one cannot help feeling that the active peristalsis so set up may do harm, and personally I give nothing, or if there is considerable flatus I empty the bowel with a turpentine enema. If a "mixture" is required to give the patient confidence a little alkaline carminative produces a feeling of comfort. If there is pain morphine should be given—a quarter or three-eighths of a grain in pill form, or suppository, or hypodermically. If, after the effects of this initial dose have worn off, there is still marked pain, it is almost certain that we have to deal with a development into a more severe type and the symptoms to be described under the third heading must be carefully excluded before giving more morphine. In two or three days the typical "mild case" will clear up under "rest, starvation, and morphine," and then the *pros* and *cons* of removal in the quiescent period with freedom from further attacks, versus risk of recurrence if left, will have to be discussed with the patient.

2. *More severe cases characterised by the presence of a definite, firm, more or less irregular "lump" in the right iliac fossa.*—A patient who when first seen exhibits the symptoms described under the first heading may at a subsequent visit be found to have developed a well-marked, hard, somewhat irregular and quite fixed swelling in the right iliac fossa. This is more likely to occur if the temperature is high (103° F. or over) at the onset of the attack. This condition, however, is much less likely to occur in a case treated by rest and starvation than when the patient has taken a purge for what he regards as "indigestion" and has continued to go about for a day or more after the onset of symptoms. The lump is not to be regarded too gravely. In fact, one has come to welcome its appearance with something of relief. Occasionally a case which seemed to be quite a "mild" one at yesterday's visit will exhibit most alarming signs of diffuse peritonitis when seen next morning, whereas the appearance of a "lump" shows that there is firm matting of intestines around the inflamed appendix and that even if pus is present there is no immediate danger of its bursting into the general peritoneal cavity. If there is a good deal of peri-appendicitis in these cases there is also good "reaction," the temperature for a day or two will probably range rather high (101° to 103° or 104° F.), the pulse probably not over 100 and frequently under 90, while generally the patient does not look particularly ill, and a blood count will reveal a marked leucocytosis. Here our authorities differ as to treatment: "Operate and let out pus," say some; "Delay operation," say others; and with these latter I have come to agree. To operate at once means tedious dissection through acutely congested and friable tissues down to what is usually quite a minute collection of pus around an appendix so soft and glued down that its removal is extremely difficult. Moreover, the pus is full of colon bacilli and infection of the abdominal wound is practically certain, which means a suppurating tract and a weakened abdominal wall. If, on the other hand, the rest and starvation treatment is persisted in it will be found in the great majority of cases that after three or four days the temperature comes down to normal and by the end of a week the "lump" is well on the way to dissolution. If after it has completely disappeared operation is delayed, say for another week, the adhesions will then be found to be easily separable, the appendix sufficiently firm to be easily dealt with, and if, as not infrequently happens, a little inspissated pus remains about its tip, the colon bacillus is probably absent, and by carefully protecting the abdominal incision the pus can be swabbed away and the wound sutured without drainage in the confident expectation of primary union taking place.

Not every "lump" case clears up in this way, of course. Now and again an abscess of some considerable size has formed and these are the cases in which the pus is liable to be discharged through the rectum. But in my experience such an abscess has formed only where rest and starvation

has not been the method of treatment adopted. (Did not King Edward persist in getting up and about in June, 1902, in order to show his subjects that "he was not ill"?) Moreover, usually the abscess discharges fully into the bowel and healing takes place and allows of a simple "quiescent period appendicectomy" later, and where there is an opening into the appendix and a rectal sinus persists—a very rare occurrence—the tissues are firmer, less friable, and consequently much more manageable when operation is delayed for a few weeks.

That in the cases in this class immediate operation is done as a routine by many surgeons and with excellent results is undoubtedly true: what one claims is that immediate operation is not essential, that to put it off is not dangerous, and that in the vast majority of cases proper non-operative treatment results in the patient quickly getting to the quiescent stage, which all are agreed is the ideal one in which to remove the appendix.

3. *Cases in which there is evidence of acute peritonitis and without the "lump" which indicates that the inflammation is well localised.*—But if the medical man can leave the patient who has developed an iliac "lump" with a comfortable feeling that there is no likelihood of a catastrophe happening before morning there is another type of case in which delay is likely to prove fatal and in which only an hour or two may separate a visit when the patient seemed to be comparatively well from a later one at which his condition is found to be desperate. I shall always remember a case which I saw when I was senior house surgeon at the Bradford Royal Infirmary. A young man of excellent physique was admitted suffering from acute appendicitis and was seen in consultation by several members of the staff within an hour or two of admission. He looked rather ill and there was not a great deal of abdominal movement, but his temperature was under 100° F. and his pulse under 80, and so it was decided not to operate. The same afternoon the nurse found that his pulse had gone up to 120 and I was sent for, when I found typical symptoms of generalised peritonitis, and in spite of immediate operation the patient was dead in 48 hours.

Every medical man with some years' experience will probably have seen cases of this sort where pus which has formed round a gangrenous or perforated appendix has suddenly burst through the all too feeble attempts at adhesions and flooded the abdomen with virulent colon infection. And it is in order to discuss the early diagnosis of this condition and to attempt to formulate rules by which it may be recognised at once and an operation done before the fatal burst has taken place that has chiefly decided me to write this paper. It is the occurrence of this class of catastrophe which has led many surgeons so strongly to advocate operation as soon as diagnosed in every case of appendicitis, and how difficult its early recognition may be is shown, not only by the case quoted above and also by that of one of the most brilliant medical men whom it has been my lot to meet, who lost his only daughter from generalised peritonitis which occurred while he was in hourly attendance upon her, but also by the uncertain language used by authors in describing this condition. Thus in the most admirable article by Mr. A. W. Cuff on "The Treatment of Appendix Abscess" in THE LANCET of August 8th, 1908 (p. 367), we find him writing: "It would be very difficult to put down in black and white all the little details, the odds and ends of attitude and facial expression which allow the experienced watcher to say of one patient, lying quietly in bed and with nothing remarkable on the temperature chart, he is really very bad, and of another vomiting slightly with rises of temperature and abdominal discomfort, he will do all right. ..... A nurse whom I know, who has had hundreds of these cases pass through her hands, possesses this power to a greater degree than any medical man I have met. Only constant watching and experience will give this insight." But we cannot all have the advantage of consulting with Mr. Cuff's nurse and if we are each to proceed unaided until experience has taught us more or less intuitively to diagnose this condition our knowledge will be gained at the expense of unnecessary deaths and unduly severe and prolonged illnesses on the part of our patients.

I believe, however, that there are definite symptoms and signs which can be described on paper and which are enough to enable the diagnosis of "inefficiently shut off pus around the appendix" to be made with a sufficient degree of accuracy. In the first place, pulse and temperature are useless in themselves; an hour before rupture the pulse may be under 80 and I have seen one case of well-marked diffuse peritonitis in which at the moment of operation the pulse was only 76. If we wait until it is 120 we shall probably have waited until well diffused purulent peritonitis has set in with its large mortality. The temperature may be anything from normal to 104° F. or more; generally it ranges rather low, which is in keeping with the fact that the "resistance" is low relatively to the virulence of the infection. The general aspect of the patient is very helpful; he almost always has a distressed and "poisoned" appearance, and this is, of course, what Mr. Cuff and his nurse have learned to appreciate by experience. But there is a condition of the abdomen which I have never failed to discover since I learned to look for it in these cases and which is practically pathognomonic of the condition of diffused purulent peri-appendicitis which if allowed to go on will result in generalised peritonitis. If the patient's whole abdomen is bared it will be found to be more distended than normal and if well diffused or generalised peritonitis is present there will be general immobility and rigidity (except when the patient is poisoned by morphine in the early stages or towards the end of the case by the products of the peritonitis) and all the regular signs of well-developed peritonitis. If, however, the pus is confined to the region of the appendix and is only threatening to generalise but has not already done so, careful observation will reveal some slight movement at any rate in the epigastric region and sometimes also of the left half of the abdomen. If the surgeon's warm hand is now gently placed on the abdominal wall, care being taken not to exert any pressure, and the epigastrium being palpated first, the rectus abdominis will be found to give slightly with each respiration. Carry the hand down over the left rectus to the pubes and the same slight movement will be observed. Now glide the hand back to the epigastrium (it should not be raised from the abdominal wall until the examination is completed) and down the right side of the abdomen. When the appendix region is reached if there is pus present the segment (not the whole muscle) of the rectus abdominis over the appendix will be found to be firmly contracted and board-like. All that is needed to demonstrate this sign is great gentleness during the examination in order not to excite general contraction of the recti muscles. The condition was as evident to my house surgeon, who was examining a case by this method for the first time five days ago, as to myself, who have used it in scores of cases. Whenever I find this segmental rigidity of the right rectus I urge immediate operation. I have had one most interesting opportunity for testing the value of this sign. A young wife who had been confined some weeks previously sent for me one Saturday evening and I found her suffering from very severe pain in the appendix region, with slight rise of temperature and a hard slowish pulse. Nothing abnormal was discovered per vaginam. A quarter-grain morphine suppository was given and only water allowed by the mouth. She dozed off soon for a few hours, but early next morning the agonising pain recurred and I saw her again and gave her another quarter of a grain of morphine *sub cute*. I saw her several times during the day, and on each occasion examined her as described. About tea-time the rectus segment was rigid; arrangements were made for operating and a gangrenous appendix with one or two drachms of thin very offensive semi-pus bathing it were found. To-day I should have recognised the continuance of very severe pain as a symptom of gangrene and have operated earlier in the day; but the "segment rigidity" was probably the earliest sign of pus being actually present.

With regard to the operation, every surgeon will have his own little details. The essential thing is, in Murphy's phrase, "to get in quick and get out quicker"; in other words, waste no time and do as little manipulation as possible. Washing out in these cases is a thing of the past; Dudgeon and Shattock have furnished experimental proof of its harmfulness, and Morton of Bristol and others have published series of cases successfully treated by swab-cleansing only.

The following case will make clear the details of the operation which I have been doing now for six or seven years with very good results.

I saw at the Bradford Royal Infirmary on August 17th, 1908, a girl, aged 15 years, who had been taken ill three days

previously and had been sent in by her medical attendant for operation. Her temperature was 102° F.; the pulse was 110; she had vomited several times during the last 24 hours and looked distressed and ill. The abdomen was distended but moved slightly and she had a definite easily demonstrable "rectus segment rigidity." She was at once removed to the theatre and under chloroform an incision four inches long was made in the direction of the external oblique fibres starting from a point three-quarters of an inch internal to the anterior iliac spine and carried downwards and inwards about an inch above the level of Poupart's ligament. Aponeurosis and muscle fibres were separated in "gridiron" fashion and the peritoneum was opened at its outermost limit. The finger was passed back to the cæcum and was then carried downwards and almost at once struck foul, thin pus, which was mopped up as it welled up from the pelvis. The uterine appendages presented and were of a deep purple colour. Then the appendix was found adherent to the posterior aspect of the cæcum and it was freed and delivered with a minimum of manipulation; the meso-appendix was tied off and a catgut ligature was put round the base of the appendix, which was then cut away. The pelvis, &c., were now gently but thoroughly swabbed dry and a thick gauze drain packed down into the abscess cavity (there was only a very inefficient attempt at shutting off the pus by adhesions). The gridiron incision was closed in layers except where the gauze protruded and the patient was propped up in bed (to prevent pus tracking up) and kept on hot water only. In 48 hours ethyl chloride was given and the gauze was removed and a fine gauze wick was put just inside the peritoneum. This was left out altogether after another two days. The temperature was normal on the third day and the pulse was 76 and flatus had been freely passed.

The incision is planned to get as far away from the general peritoneal cavity as possible and the cæcum is got at at once in this way. I have only twice found the gridiron incision too limited; in one case (a huge appendix pointing to the umbilicus) the oblique and transverse muscle fibres were separated up to the rectus sheath, which was divided vertically, giving lots of room and union of undivided muscle afterwards; in the other case there was very diffused pus and the original incision was converted into that described as Abernethy's for tying the internal iliac artery and free swabbing of pelvis and lower abdomen generally made possible. That was two years ago and the girl has a firm scar now. But whether the incision be made through the rectus sheath or close to Poupart's ligament, whether a gauze drain be used or a split rubber tube, whether rectal irrigation be utilised or the patient encouraged to drink hot water copiously, if the perforated appendix and its surrounding pus are cleared away sufficiently early Nature will set to work to form adhesions and limit the infection and in a most surprisingly short time the patient will be out of danger.

Bradford.

ON SOME MODERN METHODS FOR THE CLINICAL EXAMINATION OF URINE AND GASTRIC JUICE BY THE GENERAL PRACTITIONER.

BY C. F. R. WEISS, M.A., PH.D., F.C.S., M.P.S.

NOWADAYS, in every branch of medicine, the great importance of accurate clinical investigation is well recognised. While, however, clinical laboratory investigation is pursued as a matter of routine in almost all the medical institutions of the world and also by many private practitioners, yet, owing to the tedious nature of many of the processes and the large amount of time necessary for their performance, they are wholly or in part omitted by the vast majority of medical men. Perhaps the factor most responsible for this defection is the unsuitability of the methods in vogue in the hospitals and large laboratories to the capacities of the private worker. A laboratory assistant who makes quantitative estimations in anything from five to 20 specimens is able to employ the necessary time to far better purpose than the isolated practitioner who is working on a solitary specimen, even though the examination may be the one thing needed to assist him in arriving at a proper conclusion with regard to his case. Yet the isolated worker stands in just as much need of assistance of this kind in arriving at a diagnosis as the hospital resident with his well-equipped laboratory.

It is the purpose of the present paper briefly to pass in review certain of the newer methods for the quantitative examination of both urine and gastric juice which have but recently filtered across to this country, and to show that in addition to other merits they possess that of being well within the scope of the daily routine of the general practitioner.

Let us first take the case of albumin in the urine. I wonder were a census on the point to be taken how many general practitioners would be found to possess the ordinary albuminometer of Esbach, and, even possessing the instrument, how many use it with anything approaching habit? Until quite recently, with the exception of the Purdy tube, this was practically the only piece of apparatus by means of which the amount of albumin present in any sample of urine might be determined with reasonable facility. Doubtless much useful work has been done with Esbach's tube, but it is quite certain that a test which is only accurate for values at or above one-half *pro mille*, and which besides takes 24 hours to complete, falls very far short of the ideal. A much more efficient instrument[1] has lately appeared and is described by its inventor, Dr. H. R. Harrower, in the *Journal of the American Medical Association* (Vol. LI., No. 7). It consists of a graduated tube and a reagent (phospho-tungstic acid, 1·5 grammes; concentrated hydrochloric acid, five grammes; and 95 per cent. alcohol, 100 cubic centimetres). One cubic centimetre of urine is diluted with nine cubic centimetres of distilled water and this is added drop by drop to the reagent, shaking after each addition until the appearance of a faint white cloud. This denotes the completion of the reaction and the level of the fluid in the tube is read off. It corresponds to the amount of diluted urine which contains one-tenth of a milligramme (0·0001 gramme) of albumin. The percentage is easily reduced but a table is supplied with the instrument to assist the calculation. This is without doubt a far more practical instrument for both hospital assistant and home worker than the Esbach or Purdy tubes, and some idea of the accuracy of the test may be gathered from the fact that it is sensitive to one-tenth of a milligramme.

In the matter of the estimation of sugar also much has been done in the later instruments to simplify and to facilitate the test without impairment of accuracy. While Fehling's solution is undoubtedly one of the best reagents for qualitative work, its application to quantitative analysis in the hands of the inexperienced is fraught with serious jeopardy to accurate work. When one remembers with what apparatus and under what conditions of light, &c., these estimations are often made in the surgery of the general practitioner, one can but dimly speculate upon the possibility of anything in the shape of a reliable result being forthcoming. Moreover, apart from the possibility of experimental error, there are actual fallacies attendant upon the use of Fehling's solution. These are due to the fact that other substances in the urine can reduce cupric oxide. The chief of these are uric acid, creatinine, hippuric acid, lactose, glycuronic and glycosuric acids, and certain drugs. There is only one absolutely certain test for glucose—i.e., the fermentation test, glucose being the only fermentable substance ever found in urine. Much attention has lately been paid to the improvement of the various forms of saccharometer—i.e., instruments for estimating the amount of sugar by the fermentation method. The latest instrument of this kind, which will be found to fulfil every requirement in practice, is a graduated U tube in which evolution of carbon dioxide by fermentation causes displacement of a column of mercury. It is possible to register the sugar contents in twentieths per cent. up to 1·5 per cent. and thence in halves per cent. to 10 per cent. The instrument is cheap, simple, and effective, and will doubtless supersede all other forms of saccharometer.

For the estimation of urea no better piece of apparatus has been devised than that of Doremus. The improved form of

[1] This and all the apparatus described in the paper can be obtained from all purveyors of chemical and medical apparatus. The instruments are also sold in complete sets under the names of "Qualitest" (price 16s. 6d.) and "Quantitest" (price 33s. per case).

this excellent instrument renders possible the urea determination in 1 cubic centimetre of urine within the space of a few minutes. The only reagents required to be kept at hand are a 40 per cent. solution of sodium hydrate and measured quantities of bromine contained in bulbs.

The estimation of these three—albumin, sugar, and urea—represents the extent to which urine is chemically examined for clinical purposes by anyone not in possession of a clinical laboratory. It has hitherto been impracticable, for instance, for the average practitioner to determine the contents in a given specimen of urine of so important a constituent as uric acid. He takes up his text-book in search of an available method and finds himself duly instructed in the details of such procedures as that of Hopkins. What he is *not* told is that, ready to hand at a minute's notice, is a reliable instrument such as that of Ruhemann, by means of which the uric acid mystery may be solved within the space of half an hour or less. I do not think this method is very generally known in this country; its importance certainly entitles it to some description here. The principle involved is the fixation of free iodine by uric acid. The apparatus consists of a graduated tube and two reagents—(1) an iodo-iodide solution resembling Gram's solution in composition, and (2) bisulphide of carbon. The latter is poured into the tube up to the mark indicated; the iodine solution is added to a further mark. Diluted urine is then slowly added until the bisulphide of carbon, which from a deep violet hue acquired on the first addition of urine, passes through various depths of pink and finally becomes snow-white. This denotes the completion of the reaction and the level of the mixture in the tube is read off on a graduated scale provided and indicates in values *pro mille* the amount of uric acid present in the diluted urine. The possibilities of this simple test in private practice are too important to be overlooked. The apparatus is quite inexpensive and its utility will well repay the outlay.

Another simple quantitative test is that for phosphates. This is done by a reliable little instrument called a "phosphatometer." It consists of a graduated tube and one reagent. The tube is so graduated that all that is necessary is to add the reagent to a given quantity of urine and read off the level of the resultant precipitated phosphates on the scale provided. The reagent in this case consists of an ammonio-magnesium mixture composed as follows: magnesium chloride, five grammes; ammonium chloride, seven grammes; strong solution of ammonia, 35 grammes; and distilled water, 65 grammes. The phosphates are precipitated by this mixture in the form of the ammonio-magnesium variety. A table is provided with the instrument for calculating percentages.

Quantitative tests as simple and as effective as the foregoing exist also for the determination of indican and total acidity or alkalinity. Space forbids their detailed description here, but in their respective channels they may be made to figure usefully in a well-arranged scheme of accurate diagnosis.

Passing now from the subject of urine to that of gastric juice we find that in this field also chemical industry has been active in providing the home worker with similar means of diagnosing conditions of complexity which baffle other sources of information. The modern medical man is taught the importance of the rôle played by hydrochloric acid in gastric digestion, that its diminution or absence suggests one chain of thought, its hypersecretion another chain. Of what use is this knowledge to him in the absence of means of ascertaining which condition he is dealing with? In the present state of his resources it is only by prolonged observation accompanied by much empirical treatment with acids and alkalies that he may at length arrive at a rough estimate of the amount of hydrochloric acid present in the stomach of his patient. Wherein does the remedy lie? Clearly in submitting the gastric juice itself to chemical analysis whereby its acidity may be determined. Here, again, his outfit has been woefully lacking in provision for this important step towards benefiting a very large class of his *clientèle*. An instrument is now to be had whereby may be made three important quantitative tests—viz., the estimation of free hydrochloric acid, total acidity, and combined hydrochloric acid. These results are all obtained by the use of a graduated tube devised by Gunzberg, and, together with a few physical tests very easily performed, give all the information which is required on the subject. The instrument, termed an "acidimeter," is a simple graduated tube and in using it two reagents are required: (1) decinormal solution of sodium hydrate and (2) an indicator consisting of phenolphthalein and dimethyl-amido-azobenzol (one gramme of each) and 70 per cent. alcohol 100 cubic centimetres. Gastric juice is obtained by means of a syphon tube after a test meal and filtered through ordinary filter paper. This is poured into the tube to a given mark and the addition of two drops of the indicator solution gives a bright cherry-red colour. The decinormal soda is now added drop by drop until the colour of the fluid has changed from red to a distinct canary-yellow. The level is then read off on a scale (marked red) which indicates without any calculation the percentage of free hydrochloric acid present. This being noted down, the test is continued with the same solution by dropping in more sodium hydrate until the fluid has become permanently red. The level as indicated by another scale (marked yellow) gives the total acidity. Should there be no free hydrochloric acid present, a dirty yellow colour will result on adding the indicator. To find the amount of combined hydrochloric acid all that is necessary is to repeat the previous test using as an indicator a 1 per cent. aqueous solution of sodium alizarin-sulphonic acid. The decinormal soda is added drop by drop as before until a deep violet colour appears. The yellow figures subtracted from the previously determined total acidity furnish the required result, for the total hydrochloric acid is equal to the sum of the free and combined acid.

Thus, it will be seen that information of the utmost importance from a diagnostic point of view may be gained in a comparatively short space of time and much experimental therapy done away with. Moreover, the assistance rendered by instruments such as these goes far towards placing the medicine of the general practitioner upon the same firm basis as that of the hospital or clinic to which too often he is compelled to refer his more complex cases.

Harp-lane, E.C.

A NEW OPERATING TABLE.

BY ERNEST W. HEY GROVES, M.D., M.S. LOND., F.R.C.S. ENG.,
ASSISTANT SURGEON TO THE BRISTOL GENERAL HOSPITAL AND SURGEON TO THE COSSHAM MEMORIAL HOSPITAL;
AND
E. H. E. STACK, M.B., B.C. CANTAB., F.R.C.S. ENG.,
ASSISTANT SURGEON TO THE BRISTOL ROYAL INFIRMARY AND SURGEON TO THE COSSHAM MEMORIAL HOSPITAL.

WHEN we were recently asked by the trustees of the late Mr. Handel Cossham to advise them as to the best surgical equipment of an up-to-date hospital we found that the choice of an operating table presented no little difficulty. Most of the English models were made on four legs with or without casters, and all of them which could be raised or lowered were actuated by hand levers only, which necessitated an arduous and laborious task, and one which sometimes means the disturbance of the operation and re-arrangement of the patient. Most of the newer continental makers have adopted the central single pillar support and a few have introduced the foot-operated oil pump for raising purposes. Most of these models seemed to us to be of a somewhat unsteady type and the more elaborate—e.g., Doyen's—table is undesirably intricate besides costing 100 guineas. We therefore designed a table which would combine facility of manipulation with strength, stability, and simplicity, and after submitting the designs to an engineer and laying the same before the trustees we were instructed by the latter to have the table constructed for the Cossham Memorial Hospital. It has now been in use for over a year for every variety of operation and it appears to us to fulfil the objects of its design, and we therefore venture to describe it in the hope that it may prove of use to others.

Support.—The table is supported on a centrally placed vertical steel bar which forms part of the piston of a gun-metal cylinder imbedded 18 inches deep into the floor of the operating theatre.

Raising and lowering.—By the admission of water at a pressure of 20 pounds to the square inch into the cylinder,

which is 6 inches in diameter, a lifting power of 600 pounds is obtained. The whole table is raised by depressing a foot pedal on the floor and lowered by another similar pedal. Both these can be actuated by the operator or his assistant without moving from his position, and so the exact height can be regulated or altered during the course of an operation. Of course, in most situations a much higher water pressure (from 60 to 80 pounds to the square inch) is obtainable and in this case a much smaller cylinder could be used. It can be lowered to 2 feet 6 inches and raised to 3 feet 6 inches from the ground.

Rotation.—The table can be rotated into any desired position round the central support and locked in that position by a suitable screw.

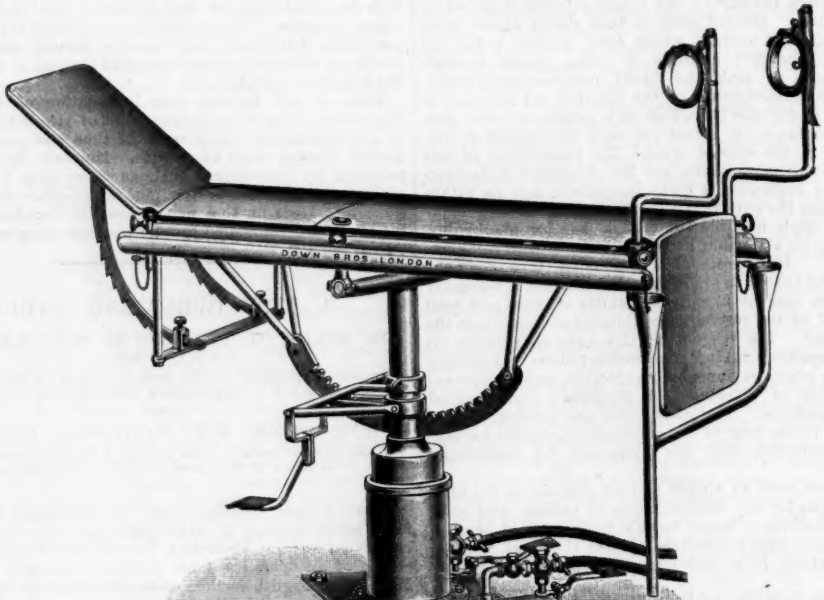
Trendelenburg position.—The table top is pivoted on a steel bar which is a part of the central support. The ends of the table rest on V-shaped supports, the lower ends of which are fixed to a steel quadrant which works in a slot through the central upright. The upper margin of the quadrant is toothed and is locked in any position by a steel ring which drops down and engages two notches of the quadrant (one on either side of the central bar). It is unlocked by a foot lever conveniently placed for use by the anæsthetist, so that the table top as a whole can be tilted to any desired angle by the anæsthetist. As the axis of this movement lies in the centre of gravity of the table top it requires very slight force for its accomplishment.

The table top.—This is formed of steel sheet made in two pieces which can be placed end to end or made to overlap one another so as to alter the length of the top. This is necessary, because as much as 6 feet are required when a full-grown patient lies on the table at full length, but when the Trendelenburg position is used and the legs are flexed over the end of the table it requires to be shorter. The steel sheet which is at the lower end of the table is bent over at right angles in a flap which is 12 inches long and which contains slots for a strap which retains the patient's ankles when the Trendelenburg position is used. An adjustable flap is fitted to one end of the table and is made in two lateral halves, which can be raised above or below the horizontal line. Usually this flap supports the head, but for amputations of the leg one half of the flap is removed to allow of the sound leg dropping out of the way and the other half flap supports the leg to be amputated. The extreme measurements of the table top, including the flap, are 6 feet by 18 inches.

Drainage.—The table top is slightly convex upwards so that all fluids falling on to it run away from the patient instead of collecting underneath him. At the side edges of the table top are two small gutters which carry all fluids away to one end of the table or the other where they are collected by a Y-shaped tube into a utensil on the floor. The sterilised towel which covers the patient during the operation is clipped on to the edges of these gutters on either side by metal sterilised clips and thus the presence of a dripping edge of towel and an uncovered (possibly septic) edge of table are alike avoided.

Heating.—A copper tank fits into the steel frame supporting the table top. It is 3 feet 6 inches long and 18 inches wide and can be filled by a hose pipe from the hot-water taps. It lies beneath the steel sheet forming the upper surface of the table but is separated from this by the struts which support the latter, so that there is no fear of the patient being burned.

Arm and leg supports.—Two pairs of upright steel right-angled rods can be dropped into either of three pairs of sockets, one pair being at the head of the table, another at the centre, and a third at the foot. Each upright can be placed with its horizontal bar at any of eight positions—i.e., parallel with or at right angles to the table or in positions at 45 degrees to the table length. At the top of the upright is a ring to which a padded strap can be fixed to encircle the arm or leg. When in the upper sockets the uprights form supports for the arms and in the lower ones for the legs in the lithotomy or cystoscopy positions.



The central positions for the uprights serve to maintain a patient in the lateral position. The patient's knees (one or both) are flexed round one upright and the thighs are flexed on the abdomen. The patient is thus kept lying on the outer side of his flexed thigh and this insures the opposite loin being kept uppermost without the necessity of a nurse holding him in position as is required in kidney operations.

It is, we think, of great advantage that the same pair of uprights should serve all these different uses, as it obviates keeping a large number of accessories.

It will be seen from the illustration and from the description given above that the table can be manipulated by the operator or his assistant and the anæsthetist without assistance from others—assistance which is not only difficult to obtain in small hospitals but which always involves the invasion of the aseptic field by septic people and the disarrangement of the operation or instrument table.

The table is finished by nickel plating over all the steel parts. It was made for us most excellently by Messrs. Douglas Brothers of Kingswood, Bristol, to whom we are much indebted for the great care which they bestowed on its construction and for many valuable suggestions as to the technical details. Messrs. Down Brothers, St. Thomas's-street, London, S.E., are now making the table.

Bristol.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A DIPHTHERIA "CARRIER": PERSISTENCE OF THE KLEBS-LÖFFLER BACILLUS NINE MONTHS AFTER ATTACK.

BY THOMAS STRAIN, M.B., CH.B. GLASG., D.P.H. CANTAB.,

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THE patient, a nursemaid having her home in this vicinity, was admitted into the Enfield and Edmonton Isolation Hospital in July of this year with the following history. While following her vocation in Somersetshire she developed in December of last year a severe attack of diphtheria, with palato-pharyngeal paralysis. She was isolated and treated with diphtheria antitoxin. Before being discharged from hospital swabs were taken from the nose and throat and were submitted to bacteriological examination and the patient was declared to be free from infection. Thereupon the girl went to a convalescent home in Devonshire, where she was further examined and was declared to be free from the diphtheria bacillus. She now secured another situation, where she was for ten days, then one of her charges contracted diphtheria; the maid's throat and nose were examined bacteriologically once more and the Klebs-Löffler bacillus was found to be present. She now returned to Devonshire, where she was isolated and treated for five weeks, when she was again examined and declared "free." Again she became nursemaid to a family in Cornwall, and after being there for three weeks one of the children in her care developed diphtheria, and again it was found that the Klebs-Löffler bacillus was present in her nasal passages. The maid now, very naturally, became alarmed and depressed, left her situation, came to her home, where she was seen by her family medical attendant who advised her to go to hospital. When she was admitted on July 28th she was not suffering in any way, but the Klebs-Löffler bacillus could be cultivated from the swabs from her nasal passages, while on each occasion the swabs from the throat were "negative." She was treated by local remedies, as antiseptic douching, swabbing, and spraying, with glycothymolin, cyllin, chinosol, and chlorine water. During the six weeks that she stayed in hospital she was submitted to weekly swabbings of the nose and throat; the information gained was that while the throat was free the nasal passages harboured the bacillus. It was also observed that the bacilli were only intermittently present in these passages, one swab, or perhaps two, giving a negative result on cultivation, whilst another swab would give a positive result, notwithstanding that each swab was thoroughly applied to the affected passages on a day on which no antiseptics had been used.

It would appear from such evidence that the bacilli were only intermittently present in the nasal passages, suggesting one of the sinuses opening into the nose as affording a nidus, periodically discharging its contents into the meatus, although in this case at no time was there any nasal discharge.

The following are points of importance in the case: (1) the manner in which diphtheria may be communicated to children; (2) the importance of swabbing both the nose and throat; (3) the remarkable persistence of the Klebs-Löffler bacillus after disappearance of the clinical signs; and (4) in isolation hospitals the necessity of frequent and *repeated* swabbings previous to discharging cases of diphtheria.

The bacteriological examinations were undertaken by Dr. R. Haldane Cook, the medical superintendent of the hospital, and by myself.

Winchmore Hill.

A CASE OF RUPTURE OF THE RECTUM CAUSED IN AN UNUSUAL WAY.

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SENIOR HOUSE SURGEON, OLDHAM INFIRMARY.

A LAD, aged 17 years, was admitted into Oldham Infirmary last June with a history of having been crushed between the "roller beam and the mule" at a cotton mill.

On admission he was in an apparently moribund condition, suffering from shock and severe hæmorrhage from the rectum. The rectum was firmly plugged with gauze and the hæmorrhage ceased, saline solution was infused into the median basilic vein, and the usual treatment for hæmorrhage carried out. However, the patient died within two hours of admission. The only marks of external injury were slight contusions in the left hypochondriac region and over the forehead. At the post-mortem examination the pelvic peritoneal cavity was found to contain a large quantity of blood. There were a slight laceration of the liver and a vertical tear on the anterior surface of the rectum three-quarters of an inch in length and situated at a distance of three and a half inches from the anus. There was no fracture of the pelvis, sacrum, or coccyx, nor sign of injury about the region of the anus. The other organs were normal. The gauze packing was projecting into the peritoneal cavity through the rent in the rectum. The main interest of the case lies in the possibility of a rupture of the normal rectum from increased abdominal pressure. Cases of vertical rupture of the rectum due to straining in order to pass hard scybalous masses have been recorded, but in these cases the rectal walls are undoubtedly abnormally thin and ruptured without great difficulty.

I am indebted to Mr. A. H. Godson for permission to publish this case.

Oldham.

Medical Societies.

ROYAL SOCIETY OF MEDICINE.

SURGICAL SECTION.

Traumatic Rupture of the Intestine.

A MEETING of this section was held on Oct. 13th, Mr. J. WARRINGTON HAWARD, the President, being in the chair.

Mr. JAMES BERRY and Mr. P. L. GIUSEPPI communicated a paper on Traumatic Rupture of the Intestine with a case of recovery after operation and an analysis of the 132 cases which have occurred in ten London hospitals during the last 15 years. The patient, a man, aged 26 years, was admitted to the Royal Free Hospital on Sept. 25th, 1907, suffering from the effects of a kick on the hypogastrium. He was admitted at 5.15 P.M., a quarter of an hour after the accident. Immediately after the accident he felt severe pain in the hypogastrium. On examination a bruise was found just above the pubes. The abdominal muscles gradually became more rigid and the pain increased in severity. Tenderness developed in the hypogastrium. He vomited several times. Liver dulness was normal. The pulse-rate rose from 76 to 96. Laparotomy was performed by Mr. Berry four and a half hours after the accident. A rupture one and a half inches long was found in the ileum and sewn up. The peritoneum was washed out with saline solution and drainage was maintained for a few days. The patient was sitting up from the time of the operation and saline infusions were given per rectum (the patient absorbing 26 pints in three days). He made a good recovery and was now quite well. This case led Mr. Berry and Mr. Giuseppi to collect all the cases of rupture of the intestines without external wound which occurred in ten of the principal London hospitals (Charing Cross, Guy's, the London, Royal Free, St. Bartholomew's,

St. George's, St. Thomas's, University College, King's College, and the Middlesex). The cases numbered 132. This list was, so far as they knew, the only large collection of cases drawn exclusively from hospital records and was therefore of more value than lists compiled solely from literature. No less than ten of these cases had been under the care of one of them at the Royal Free Hospital, and seven of the earlier cases at St. Bartholomew's came under the notice of the same observer and post-mortem examinations on most of them were made by him. Of the 132 patients 122 were males and 10 were females; 14 were children under ten years, 32 were between the ages of ten and 20 years, 46 were between 20 and 40 years, and 40 were over 40 years. Hernia to a small extent predisposed to rupture of the intestines, as was shown in one of their cases in which a mass of lead fell on an inguinal hernia and caused the rupture. In considering the causation of the injury it would be seen that the various forms of injury might be classed under very few headings: Run over, 51; squeeze or crush, 24; blow, 23; kick, 16; fall, 11; reduction of hernia, 1; and uncertain, 6. The conditions under which the intestine was ruptured were almost invariably the sudden and violent impact of a hard substance against the posterior abdominal wall. The prominent vertical bridge of the lumbar spine and to a less extent the iliac bones were those against which the intestine was violently crushed. As Makins had pointed out, the parts of the intestine that were most exposed to injury were those in the lower half of the abdomen. An important exception was the duodenum which from its fixed position in front of the lumbar spine was especially liable to injury. Of the 132 cases the duodenum was the part affected in not less than 24. Their statistics and those of Curtis and Hertlé seemed to show that the upper part of the jejunum and the lower part of the ileum were more liable to injury than the rest of the ileum and jejunum for they have a shorter mesentery and were more likely to be found in front of the lumbar spine and less likely to slip aside. All parts of the intestines were liable to injury. The situation of the ruptures was as follows: Large intestine only 10, small intestine only 115 (duodenum 23, duodeno-jejunal flexure 3, jejunum 32, ileum 32, "small intestine" 25), large and small intestine 4, partial rupture of the duodenum 1, and of the large intestine 2. Ruptures were due to crushing, bursting, or traction. Direct traction might be the cause of rupture in the rare cases of rupture at the duodeno-jejunal flexure. Bursting was, Mr. Berry and Mr. Giuseppi ventured to think, a rare cause, and could only occur when the intestine contained a large amount of fluid. Hertlé's experiments showed that in crushing injuries the muscular and mucous layers were first damaged, then the submucous, and lastly the peritoneal. Whereas in bursting injuries it was the submucous coat which was the last to give way. For their own part they believed that rupture of the intestines was almost invariably produced by direct crush. Multiple ruptures were found in 22 of their cases; in these instances the ruptures were usually close together. In 38 cases the rupture was stated to have been transverse and in six to have been longitudinal. In 15 the whole circumference of the intestine was involved and in at least 15 the mesentery was torn. Partial rupture was found in three cases and retroperitoneal in four cases; of these, three occurred in the duodenum. In 24 cases there were other complications such as rupture of the liver, spleen, fractures of the pelvis, &c. In 59 cases the notes were sufficiently full to allow of conclusions being drawn as to the relative frequency of the more important symptoms. The symptoms were few in number but very characteristic. Pain was by far the most important of the early symptoms. Within the first few hours the pain was recorded as being "severe," "intense," and so forth. The pain was as a rule severe and continuous. It was very rarely absent, and in such cases the accompanying shock was described as profound. As the pain was due to extravasation of the intestinal contents it was absent or slight in partial ruptures or when there was no extravasation. In 51 of the 59 cases pain was stated to be present early. It was absent in only three of the 132 cases. In one this was due to profound shock; in the second the ruptures were probably secondary; and in the last there was a submucous rupture of the duodenum. Tenderness at the seat of lesion was common and was recorded as present in 35 of the 59 cases and absent in only two. Shock was of little diagnostic value, as it was common in abdominal injuries of all kinds. In many of the cases it was entirely absent. Three of the patients walked to the hospital and two went on with their work, one of these for four hours. Vomiting was an important symptom and generally began within a few hours. Repeated vomiting suggested rupture. Vomiting might, however, be delayed in undoubted cases of primary rupture. Vomiting of blood was rare and was practically only found in duodenal ruptures as in three of the cases. Vomiting was recorded as present in 43 cases and absent in two. Rigidity of the abdominal muscles was of the utmost importance. It was recorded as present in no less than 50 of the 59 cases and absent in only four. Hartmann says that in 37 cases of abdominal injury it was present in 17 and in these a visceral lesion was found; the remaining 20 in which it was absent recovered without operation. Added dulness was due to collapse of the intestine, extravasation of intestinal contents, blood, and inflammatory exudate. If present soon after the accident it was due to blood and signified rupture of a solid viscus or the mesentery. A localised area of dulness near the seat of injury was at least suggestive of rupture. It was recorded as present in 18 cases and absent in 14 of the 59 cases. A rise in the pulse-rate was well known; unfortunately in the first few hours it was all too common to find no rise. Diminution or loss of liver dulness as a physical sign was worthless, as it very rarely appeared early. Unfortunately it was the sign to which most attention was paid. It was absent in all the successful cases. Melæna was not present as an early symptom of complete ruptures. It was rarely a symptom of partial rupture of the mucous membrane. Emphysema of the abdominal wall was present in only one case of retroperitoneal rupture of the duodenum. Distension of the abdomen was usually late in onset and was one of the gravest signs. In the 17 recoveries it was not present in a single case. The diagnosis of rupture of the intestine rested not upon a single symptom but upon a careful consideration of all the facts of the case. Every case of abdominal contusion should at first be looked upon as a case of possible severe internal injury and attention paid to the nature of the accident and the exact point struck. The case should be carefully watched from hour to hour. Severe pain, rigidity of the abdominal muscles, and marked tenderness justified a laparotomy. The diagnosis from rupture of the liver, spleen, or mesentery rested mainly on the presence or absence of signs of hæmorrhage. The important thing was not so much to diagnose the site of the lesion but that there was a lesion requiring laparotomy. It was much more difficult to diagnose secondary ruptures, as at first no symptoms might be present. Those were the cases that required the most careful watching for the onset of symptoms. Retroperitoneal ruptures might be suspected when symptoms of septic absorption occurred without peritonitis. The mortality in the series of 132 cases was 115, only 17 recovering, giving a percentage of 12·8. Hertlé reported that 32 recovered out of 138, a percentage of 23·2, nearly twice as good as their results. Unfortunately Hertlé's cases were taken mainly from the literature in which there was a tendency for successful cases to be published and no mention was made of long lists of failures. In the present list of cases 84 were operated on, and of these 17 recovered. It was noteworthy that of the 17 successful cases no less than eight occurred at St. Thomas's Hospital. If the diagnosis was made or there was a strong suspicion of the existence of rupture of the intestine, based on the symptoms which they had mentioned, laparotomy was immediately indicated. If the symptoms were not sufficient to justify laparotomy the patient should be kept in bed, carefully watched, and no food given by the mouth until all suspicion had passed away. The rupture was usually easily found, and when not found it was usually duodenal. Of 15 of the cases in which a rupture was not found in seven it was duodenal. Therefore a careful search should always be made of the duodenum both above and below the mesocolon. If the shock was severe that should be treated in the ordinary way and preparations made in the meantime for the operation. Moderate degrees of shock should not deter the surgeon from operating. The methods of dealing with the rupture were: (1) simple suture, the method to be preferred; (2) Murphy's button; (3) excision followed either by end-to-end anastomosis with sutures or a Murphy's button, or by

closing both ends and doing a lateral anastomosis; and (4) the formation of an artificial anus. It was unnecessary to irrigate the peritoneum and sponging was quite sufficient. The question of drainage was disputed; drainage was used in 30 cases with nine recoveries and no drainage in 17 with seven recoveries. Duodenal ruptures when small should be sutured; when large either the ends might be brought together over a button or both ends might be closed and a gastro-enterostomy performed. There was but one case of recovery from a duodenal rupture, a case reported by Godwin in THE LANCET, Oct. 14th, 1905, p. 1108. In one of the cases from St. Thomas's Hospital a drainage-tube was placed down to the rupture and the peritoneum packed off. Six days after both divided ends were sutured and posterior gastro-enterostomy was performed, but death ensued on the ninth day. After the operation the patient should be sat up as soon as possible and saline infusions given per rectum. Mr. Berry's and Mr. Giuseppi's conclusions were: (1) that rupture of the duodenum was by no means so unusual as was generally supposed; (2) that the rupture was usually produced by a direct crush and not by bursting or traction; (3) that the early symptoms of primary complete rupture were few but fairly characteristic; (4) that of these the most important were severe and continuous pain, rigidity of the abdominal muscles, and vomiting; (5) that secondary rupture was by no means uncommon (the symptoms in these cases were often delayed for hours or even days); (6) that early operation was the only practical means of treatment; (7) that if operation were delayed until the abdomen is distended or liver dulness absent, there was practically no chance of success; and (8) that after operation the patient should be sat up in bed and treated with massive saline infusions.

Mr. G. R. TURNER related the details of a case in which the rectum was ruptured without any external wound. The patient was a boy and the history was a doubtful one of a broomstick passing up the anus. Mr. Turner did a laparotomy and stitched up the rupture in the rectum. The boy made a good recovery. He insisted on the importance of the patient being left in one position after the operation and not turned or twisted about.

Dr. S. G. KIRKBY-GOMES narrated the facts concerning a case of ruptured duodenum when he was in charge of a hospital in British Borneo and emphasised the necessity of avoiding the administration of opium, as it was likely to mislead the surgeon in diagnosis.

After Mr. P. W. G. SARGENT had spoken, Mr. GIUSEPPI and Mr. BERRY briefly replied.

CLINICAL SECTION.

Exhibition of Cases.

A MEETING of this section was held on Oct. 9th, Sir THOMAS BARLOW, the President, being in the chair.

Dr. A. STANLEY GREEN showed a case of Gastrostaxis with Gangrene of Two Fingers of the Right Hand. When first seen by Dr. Green the patient, a female, was suffering great abdominal pain and was cold and collapsed, but he was able to elicit from her that she had been suffering from hæmatemesis and pain after food for the previous three years, and her condition was rather suggestive of perforation of a gastric ulcer. He had her removed to the Lincoln County Hospital, where she recovered slowly under a careful diet and rest in bed. She then for about 12 months was at work as a companion to a lady, but during the whole of the time she had attacks of melæna and hæmatemesis, and no treatment relieved either the bleeding or the pain. Gastro-enterostomy was then performed and for about six months she had no further hæmorrhage, but then it returned and she was as bad as ever. Her abdomen was then opened in the Leeds Infirmary and the stomach and duodenum were examined, but nothing was found to account for the continuous bleeding. After this sores appeared around the waist and on the flexor aspect of the right forearm and extensor aspect of the left leg and slightly also on the right. As the melæna was very persistent during December, 1905, the effect of passing a long tube up the rectum was tried, and a pint of 2 per cent. solution of nitrate of silver was injected; the douche was attached to the positive pole of a continuous battery and the negative pole, a large pad, was placed on the abdomen. The result was very satisfactory for a few days, but it was not permanent. In June, 1907, gangrene of the terminal phalanx of the index finger of the right hand began, and amputation became necessary, and this was done on Sept. 20th; the stump healed well, but at the end of October the same condition appeared in the stump and it was found necessary to remove the finger through the metacarpo-phalangeal articulation. Again the stump healed well; however, a few months ago there was superficial gangrene, but it was possible to prevent any extensive loss of tissue. On August 19th, 1908, the patient had pain in the fifth finger of the right hand, and this extended up the arm to the shoulder, and, in spite of the application of warmth and putting the hand in warm saline solution for the purpose of dilating the blood-vessels, gangrene took place and Dr. Green was compelled to amputate through the metacarpo-phalangeal joint. He called this a case of gastrotaxis because it seemed to him to exhibit the symptoms of this disease as described by Dr. W. Hale White and also because no pathological lesion was found either in the stomach or duodenum at either operation.—Dr. HALE WHITE pointed out the significance of the gangrenous condition in this case and said that the explanation of the pathology of gastrostaxis must lie in the pathological anatomy of the capillaries.—Mr. J. R. LUNN, Mr. W. SAMPSON HANDLEY, and Mr. V. WARREN LOW discussed the case and Dr. GREEN replied.

Dr. STANLEY GREEN also showed a case of Penile Hypospadias after operation in a patient aged four years. Dr. Green performed the first operation on March 29th, 1908. The description of this method was first published by Mr. Rupert T. H. Bucknall in THE LANCET of Sept. 28th, 1907, p. 887. There was practically no difficulty in cutting the flaps either in the penis or the scrotum, but the suturing of these required both time and patience. Dr. Green did not follow the method employed by the originator of the operation as he found it both easier and less tedious to bring the flaps into apposition after passing the catheter by means of Michel's clips. All the clips were removed on the tenth day and the patient left on the eighteenth day soundly healed. At the second operation the penis with its new urethra was dissected up and covered with the skin flaps formed from the skin of the scrotum; the raw surface left on the scrotum was easily brought together by a little judicious undercutting, and all was soundly healed on the eighth day, the patient leaving the home on the tenth. Dr. Green considered that the result was fairly good but thought that it would have been better if he had cut the flaps on the penis longer, by this means bringing the new opening nearer to the end of the penis.

Mr. SAMPSON HANDLEY showed a case of Separation of the Lower Epiphysis of the Femur treated by screwing. The patient, a boy, aged nine years, had become entangled in the wheel of a moving cab and was admitted to the Middlesex Hospital with a separation of the lower epiphysis of the left femur. The end of the diaphysis was prominent under the skin in the popliteal space. The limb was at first treated by flexion of the knee, maintained by a figure-of-eight bandage round the thigh and leg. A skiagram showed that the position of the bones remained deplorable. Under an anæsthetic an incision was made along the outer side of the thigh just above the knee and an attempt was made, with apparent partial success, to lever the epiphysis into position. The limb was again put up in flexion with plaster-of-Paris. A skiagram taken eight days later showed, however, no improvement in the position of the fragments. Ten days after the first operation on Oct. 26th, 1907, a semicircular incision was made from the outer to the inner condyle, its convexity crossing and dividing the ligamentum patellæ just above the tubercle of the tibia. The incision was deepened to the bone, cutting through the capsule of the knee-joint, and a flap including the patella was turned up so as to expose the whole of the knee-joint from the front. The line of fracture followed the epiphysial plane on the outer side, but towards the inner side ran obliquely through the lower end of the diaphysis. There was much difficulty in getting the epiphysis into position and great force had to be used to effect this object. The posterior aspect of the lower end of the diaphysis was found stripped of periosteum for a considerable distance upwards. The fragments were held in position by a screw introduced above the external condyle on its outer aspect and passing downwards and inwards obliquely from the diaphysis into the epiphysis. The ligamentous structures which had been divided were then carefully sutured, and the limb was placed on a back splint in a position of slight flexion. Convalescence was uninterrupted.

The boy was discharged with the leg in plaster seven weeks after the operation. When seen three months afterwards he walked as well as before his accident. There was no apparent weakness of the left knee, and its movements were perfect except for slight limitation of flexion.

Mr. REGINALD G. HANN and Dr. H. LAMBERT LACK showed a case of a Foreign Body in a Bronchus with Consolidation of Lung and Purulent Bronchitis. The patient was a man, aged 33 years. His illness dated from the extraction of 26 teeth under ether on Feb. 16th, 1908; since then he had never been free from cough. He had never been ill previously. His symptoms now were shortness of breath, cough with considerable expectoration, hæmoptysis, and some loss of weight and strength. With the X RAY screen a shadow suggesting a portion of tooth had been seen in the second left intercostal space 2½ inches to 3 inches from the middle line. There was extensive consolidation of the left lung behind, with vesicular breathing, and some loss of movement without adventitious sounds; there was no displacement of the heart and no tubercle bacilli were found.—Mr. HERBERT TILLEY and Mr. RICKMAN J. GODLEE having spoken, the PRESIDENT said that the reactionary symptoms of foreign bodies in the lung were of the most variable nature, cases having occurred in which the cough was almost like that of whooping-cough.

Mr. TILLEY demonstrated upon a patient the use of Dr. W. Brüning's (Freiburg) instrument for the direct examination of the Larynx, Trachea, and Œsophagus. The complete success of this demonstration rendered it a feature of the meeting.

Mr. PERCY FLEMMING and Mr. RAYMOND JOHNSON showed a case of Traumatic Pulsating Exophthalmos treated by ligature of the common carotid artery. The patient was a man, aged 47 years, who fell on the back of his head in September, 1907, and was rendered unconscious for a few minutes; there was a small scalp wound. In November he was found to have left homonymous hemianopia. At or about this time he began to notice a beating noise in the head. At the middle of April, 1908, the left eye was noticed to be prominent and congested. On April 29th there were marked proptosis and distinct pulsation of the globe, chemosis and congestion of the conjunctiva; a continuous murmur with systolic exacerbations was heard over the globe and surrounding part of the skull (this murmur was arrested by compression of the carotid); the fundus was normal, there was no distension of retinal veins; the reaction of the pupil was normal; all the movements of the eye were limited; and no other symptoms were present except slight deviation of the tongue to the right. After rest in bed from April 29th to May 10th the chemosis lessened and pulsation ceased, the murmur being still heard. The symptoms returned when the patient got up. On May 14th ligature of the left common carotid artery was performed by Mr. Raymond Johnson; the pulsation and murmur ceased; there were no cerebral symptoms. The proptosis became less, but on May 29th a slight systolic murmur could be heard over the eye. On June 11th the patient became aphasic; there were right facial paralysis and deviation of the tongue to the right; the right arm was weak, but there was no weakness of the right leg. Gradual improvement followed. On Sept. 29th there was very slight proptosis, without any pulsation or murmur; vision, after correction of slight myopia, was ⅔; there was injection of the conjunctiva; the aphasia was much improved; the deviation of the tongue was still present. It was suggested that the patient sustained a fracture of the base of the skull, with resulting arterio-venous communication, involving the cavernous sinus and internal carotid artery of the left side. The symptoms which supervened nearly a month after the operation were probably due to the extension of thrombosis from the seat of the arterio-venous communication to a branch of the middle cerebral artery.

Dr. F. J. POYNTON showed two cases of General Paralysis in Childhood. The first was a girl, aged 11 years; she was a full-term child and labour was normal. She walked when two years of age. She was the second of three children; the other two were bright and at school. The history of the illness was vague. When aged nine years she was taken to a London hospital for weak ankles and ordered surgical boots. When aged ten years she went to another London hospital and was fitted with glasses. For two years there had certainly been gradual failure, mental and physical, though she had before been high-strung and emotional. Her pupils were fixed to light and to accommodation; the left was very large and the right medium in size. There was well-marked disseminated choroiditis in both eyes; she had Hutchinson's teeth. There was slight tremor of the lips and the tongue with spastic paraplegia of the lower extremities, the left leg being more affected than the right; the reflexes were plus; there was doubtful extensor response. She was not clean and talked a good deal of nonsense, but answered questions. The second case was that of a boy, aged eight and a half years. He was quite bright and well until November, 1907, and then after playing in the street he found the right arm and leg shaking. Within the next month he had two "seizures" at night, in which there were screaming and trembling. From that time there had been steady mental deterioration, for which he was sent from school three months later. Emotional control had also been much impaired. General trembling had persisted since the first months of illness and resembled the shivering of a person starved with cold; this was increased on observation. He was the second child of five and there was no evidence of syphilis in the parental or family history. His pupils did not apparently react to light or to accommodation; their size was small, and there was no evidence of syphilis in the fundi; there was tremor of the tongue; there was general increase of the reflexes; the mental dulness had steadily increased in the last few months. He seemed at times to be quite "lost" and was not clean.

Dr. POYNTON read a paper on Pyuria in Pregnancy and Pyelonephritis in the Infant. The case was that of a young lady, aged 21 years, who in the fifth month of her first pregnancy developed pain and tenderness over the right kidney, with irregular fever and sweating. There were pus and albumin in the urine which was foul. There had been troublesome constipation. Her illness lasted three weeks, the pyuria two months, and the albuminuria did not disappear until her confinement. He looked upon the case, which he had not seen himself but which was detailed to him by her husband, a medical man, as one of pyelonephritis. A healthy boy was born at full term, but when two months old he became suddenly extremely ill with vomiting, high irregular fever reaching on one occasion to 106° F., and drenching sweats. When he saw the child abdominal pain was obvious and there were also alarming symptoms—twitching, rigidity of the neck, irregular breathing, and paroxysms of dyspnœa. After a few days the scrotum was noticed to be swollen and the urine was diminished in quantity and contained abundant pus, albumin, but no crystals, blood, or casts. There was tenderness over the right kidney. The illness lasted from April 20th to May 18th, and at the end of the first fortnight a passing jaundice which lasted five days was noticed. Recovery was eventually complete. No catheter specimen of the urine was examined, but the case was clearly one of pyelonephritis. The jaundice was possibly the result of a general toxæmia or of miliary abscesses in the liver. Throughout the illness the diet was a great difficulty. A patent food was used at first, but at last only peptonised ass's milk could be taken. Later the fresh milk was well digested. Finally, citrated cow's milk was used. Urotropin in half-grain doses was alternated with citrate of potassium in five-grain doses. Later, at Sir Thomas Barlow's suggestion, sodium salicylate in two-grain doses was substituted for the citrate with good effect. No vaccine was employed. The interesting point was the occurrence of a similar condition in mother and infant.—After Dr. F. PARKES WEBER and Dr. C. R. BOX had spoken, Dr. POYNTON replied.

Dr. H. A. LEDIARD showed coloured drawings and microscopic sections of the case of Multiple Tumours of the Skin of doubtful nature, exhibited to the Clinical Section on Oct. 11th, 1907, and reported in THE LANCET, Oct. 19th, 1907, p. 1089. The patient died in January last, with the following symptoms: Extension of the hæmorrhage into the skin over the forehead and temples, constant enlargement of the glands in the neck, above the collar bones, axilla, and along the pectoral fold, limitation of the skin hæmorrhage to the front and back of the chest hæmorrhage into the conjunctiva and palate, and hæmoptysis and hæmaturia; enlargement of the liver, anæmia, dyspnœa, and final exhaustion with deafness. A partial post-mortem examination showed no morbid growth anywhere, but hæmorrhage into the scalp, the skin of the chest, lymphatic glands, liver, and kidneys. Prior to the end the surface appearances

almost vanished except for the dark coloured scalp. At the necropsy the liver had shrunk to normal size. Dr. Lediard drew attention to the hitherto unrecorded occurrence of hæmorrhage into lymphatic glands in this disease, and the late appearance of the classical symptoms of purpura, which were not existing when the patient was exhibited last October. Dr. Lediard considered that it might have been a case of purpura hæmorrhagica but was more probably one of acquired hæmophilia associated with a lymphatic form of leukæmia.—At the suggestion of the PRESIDENT it was decided to form a small committee to examine the microscopical sections and to report thereon.

MEDICAL SOCIETY OF LONDON.

Presidential Address.—Notes of a Case in which a Portion of a Lung was Excised.

A MEETING of this society was held on Oct. 12th, Mr. C. B. LOCKWOOD, the President, being in the chair.

The PRESIDENT delivered his Address in the course of which, after alluding to the strong position which the Medical Society of London had attained, he dealt with the deplorable losses sustained in the ranks of the junior members of the staffs of the London hospitals through overwork. He said that some of the subjects upon the programme for the coming session exemplified the stupendous increase which had taken place in the number and arduous nature of modern operations. No organ or region of the body was exempt. Their programme included excision of the lung, radical cure of hernia, hysterectomy, and the surgery of fracture of the base of the skull. But modern surgery included many other new operations, such, for instance, as those on the vermiform appendix, the stomach and intestines, the gall-bladder, and upon the bones for the repair of fractures, not to mention the operations on the brain and nervous system, and even those prolonged and searching operations for the extirpation of malignant growths and of the lymphatic gland areas in their vicinity, this widespread proceeding being rendered imperative by the knowledge which they had gained of the rapid and wide spreading of the disease and of the short-circuiting of the lymphatics of the tongue, of the breast, and of the pudenda. Few could realise the arduous and exhausting labour which such operations entailed. The exhausting and wearing labour which was entailed by the increase in the number of operations done during the day, and of emergency operations done both day and night, had not in his opinion received due attention nor been taken properly into account. Recent lamentable events must have awakened in everyone's mind some feeling of apprehension. Some of those who had succumbed under the strain and stress of their hospital work were strong and healthy young men, others were perhaps not well suited in physique, but long hours in the out-patient rooms, in the wards, and in the teaching departments, with much night work and insufficient rest and recreation, were not calculated to fortify anyone to withstand the infection and contagion to which surgeons were inevitably exposed. It was not surprising, therefore, that he could recall by no means a few instances in which his own personal friends had become the victims of tubercle and other infective diseases. The surgery and the out-patient departments, in which so much good work and teaching were done, were always crowded and often ill-ventilated; the atmosphere was laden with dust and all that dust entailed. The work in the surgical wards was now of a more exacting kind. Though dressings of individual wounds were less frequent yet there were more wounds to dress. The clinical teaching, which was at once a duty, a pleasure, and a privilege, was at the same time a tax upon the energy. In some of their older institutions that arduous work had to be done under unfavourable conditions in regard to cubic space, floor space, light, and ventilation. He supposed that everyone was familiar with that feeling of exhaustion which was experienced after going round the wards. The work also in the operating theatres usually lasted for three hours on at least two days in the week. In operating theatres besides the patients were the surgeon and his assistants, and they had, too, the anæsthetist, the pupils, the sisters and nurses, and a variable number of spectators. Unless the theatres were planned with all that in view and scientifically ventilated, and lighted, and if necessary heated electrically, it could be easily understood that the atmosphere became almost insupportable and highly prejudicial to the health of those who breathed it. As if all that work were not sufficient he might add that appointments at the great hospitals required attendance upon a great number of committee meetings. He could not help thinking that some of those who had succumbed to overwork were too willing horses and that such valuable lives ought to have received far more care and consideration. The over-working of the younger men must have, and was having, a prejudicial effect not only on their health but also upon their scientific work. If British surgery was to maintain its position surely those who were the makers of it must have sufficient time and leisure to think, to do scientific work, and to record their achievements. In addition to all this there was no question but that proper and abundant recreation in the open air was one of the necessities of life for those who lived a surgeon's life; for the seniors that was difficult but far from impossible; for the juniors pleasant and healthy holidays entailed a pecuniary outlay which might not always be at their command. He feared that as things were constituted at present it was too much to hope that hospital authorities could pay adequate salaries. The public who supplied the voluntary contributions were quite under the impression that hospital appointments were handsomely remunerated posts, and the hospital authorities themselves, whilst aware that they were not giving a proper reward for the work done, were yet often under the impression that the emoluments of the medical school were handsome and all-sufficing. It was clear that a remedy was not likely to be found for the evils which he had pointed out in increasing the staff of the present hospitals, for the simple reason that there was not space enough in their present hospitals for them to work in. The multiplication of hospitals would hardly alleviate the lot of medical men, who would, of course, be expected to work in them gratuitously, and, besides, the public would continne flock to them. It was probable that by this time everyone was convinced that the older hospitals must be replaced by new ones, and that was being gradually done. But even in the new ones the problems of light and ventilation required to be studied and adjusted with extreme care and with reference to the health and comfort of the medical officers as well as of those of the patients and nurses. Some would find a remedy in State or municipal hospitals. Another remedy was greatly to restrict the numbers of those seen at the hospitals. The President concluded by expressing the hope that when the Chancellor of the Exchequer rearranged his scheme of old age pensions he would add to it one of insurance against sickness and surgical operations.

Mr. J. RUTHERFORD MORISON (Newcastle-on-Tyne) read a paper entitled "Notes of a Case in which a Portion of a Lung was Excised." The patient was a woman, aged 36 years. He saw her first on May 25th, 1908, nearly two years after a dental operation from which she dated the commencement of her illness. She was sent with the diagnosis of "a tooth impacted in a bronchus." She looked pale and weak, was frequently worried by a cough, and expectorated with difficulty a quantity (about one pint in 24 hours) of most offensive, greenish white fluid. On the same day she was admitted into Dr. D. Drummond's ward in the Royal Victoria Infirmary for observation and treatment. The diagnosis made by Dr. Drummond was that she had bronchiectasis limited to the lower part of the left lung, and though Roentgen ray examination showed no tooth both of them believed from knowledge of similar cases that the mischief was due to an impacted tooth. The prognosis made by Dr. Drummond was that if left she could not get better and he entirely approved of his (Mr. Morison's) suggestion to operate for the bronchiectasis. At the operation the lower part of the lung was excised, but the post-mortem specimen of the lung exhibited at the meeting showed that the impacted tooth had just missed being removed.—After a discussion carried on by Dr. F. DE HAVILLAND HALL, Mr. T. H. KELLOCK, Dr. E. C. BEALE, Dr. C. W. CHAPMAN, Dr. J. KINGSTON FOWLER, Mr. A. E. BARKER, and Dr. S. WEST, Mr. MORISON briefly replied.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—The winter session of this society was opened on Oct. 7th, Dr. P. Boobbyer, the President, being in the chair.—Dr. James Niven gave an address on the Relations of

the Municipality and the Medical Profession to Public Health Administration. Describing this as the Elizabethan age of medicine Dr. Niven traced the growth of preventive and State medicine, the progress of reform, and the machinery by which it was being carried out. In a graceful tribute to the work of the late Sir John Simon he illustrated some of the difficulties that had to be overcome in the war against filth and lamented the fact that the recommendations of the Royal Commission on Sewage in reference to shell-fish had apparently been forgotten. Comparing the far less ambitious way they went to work in this country with the large medical staff attached to the medical officer of New York city he insisted that the requirements of modern preventive medicine had outgrown the working capacities of the existing public health service which needed considerable extension as well as recruits from amongst the ablest men procurable. With the extension of knowledge the examination into conditions of health and disease must now be closer and more minute. Dealing with the alarm naturally raised at the elements of degeneracy found to be associated with the increasing aggregation of population in large towns Dr. Niven formulated as the central and inspiring ideal in all public health work that patriotism must ally itself with the raising of the standard of health in each individual. State medicine, too, had outgrown its working staff and it was necessary that large urban centres of population should be subdivided into smaller districts, the social and sanitary needs of each of which could be studied with greater care and closer attention by highly trained individual officers. Parochial district medical officers should be health officers for their districts and should hold a diploma in public health. They would be subordinate to the medical officer of health for the whole town, to whom they would send returns of sickness and reports on insanitary conditions in their districts. They would serve as centres of instruction and guidance in health matters. These gentlemen would receive an adequate salary and would not be permitted to take private patients and due regard would be paid to existing rights. Referring to the health of children at school Dr. Niven urged the great need of training teachers in the principles of school hygiene. A good nurse, especially one trained in the management of infants and young children, and a well-educated midwife could render useful public service. But it was no use sending the blind to lead the blind, and institutions should be established wherein aspirants for social service could be properly trained. As an example of the magnitude of the work required from the public health service Dr. Niven traced the great improvement now brought about in the cleanliness, freshness, and purity of the milk-supply of Manchester by direct and indirect means, though increased powers were urgently needed, so that an urban population should no longer be left helplessly at the mercy of polluted or poisonous milk sent into the town from rural districts over which the urban sanitary authority had no effective control. In the matter of tuberculosis Dr. Niven also detailed the administrative measures carried out with some success in Manchester since voluntary notification had been adopted there.—A hearty vote of thanks to Dr. Niven for his address was moved by Dr. F. R. Mutch (chairman of the health committee), supported by the President and Dr. W. Hunter (medical officer of health of West Bridgford), and carried unanimously, to which Dr. Niven briefly replied.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Oct. 3rd, Dr. J. Walker Downie, the President, being in the chair.—Dr. James Miller read a paper on the Vaccine Treatment of Infectious Disease, with illustrative cases of Acne Vulgaris, Pyelitis, and Tuberculosis. The cases of acne were all severe and of long standing. Medical treatment by diet and local applications had been thoroughly tried but had failed to effect a cure. Cultures were made from the particular organism present in the pustules and a vaccine prepared. Inoculations were given every 10 to 14 days in the supra-scapular region. The dose at first consisted of 500,000,000 and was increased to 1000 millions of organisms. The opsonic index of the patient was at first invariably low, about 0·65, but was raised as a result of treatment to 0·7—2. The number of injections found necessary to insure a cure varied from four to 14. In some cases the condition became decidedly aggravated temporarily after an injection if the index was very low. In these cases dosage should be carefully guided by observations of the opsonic index. Treatment was particularly efficacious in a case of pyelitis due to Friedländer's pneumobacillus. The case was very acute and the man had rigors and a temperature of 106° F. Two inoculations were sufficient to effect a cure, probably due to the fact that his index was observed to be rising before treatment. Charts were shown illustrating the raised opsonic index by inoculations of Koch's new tuberculin, by Bier's treatment, and by exercise in cases of tuberculosis. Dr. Miller specially emphasised the remarkably high, sustained opsonic index obtained by combining heated horse serum with the vaccine (T.R.). The patient, a female, aged 25 years, had crepitations at the left apex, an extensive left-sided pleurisy, high temperatures, and many tubercle bacilli in an abundant sputum. When the acute stage had subsided she was sent to the country for three months and returned improved but physical signs were much the same. Under inoculations of T.R. and heated horse serum the crepitations rapidly disappeared and the sputum disappeared to a trace in which it was impossible to find tubercle bacilli after numerous examinations. The area affected by the attack of pleurisy could still be marked out. The patient had resumed her work for the past six months and was keeping perfectly well.—Dr. A. Freeland Fergus read a paper on Headache and Ocular Treatment. There were at least six conditions causing headache for which ophthalmic surgeons might be consulted: (1) errors of refraction; (2) insufficiency of accommodation; (3) badly centred spectacles; (4) the various forms of heterophoria; (5) not ocular but due to migraine; and (6) disease of the frontal sinus or antrum of Highmore, which was erroneously considered of ophthalmic origin. Ten cases illustrating these various forms were recorded and these various causes discussed. Special attention was given to the relativity of the functions of accommodation and convergence. The wrong centration of lenses was essentially of two kinds. Sometimes the centres of the lenses were not properly adjusted as regards the visual axes. At other times the line of sight did not cut the plane of the lens at approximately a right angle and consequently gave rise to an oblique refraction. In neurasthenics treatment of ocular defects by spectacles sometimes failed to give relief to the headache. These and other conditions were fully discussed.

ÆSCULAPIAN SOCIETY.—A meeting of this society was held on Oct. 2nd. Dr. Alexander Morison, the new President, delivered an address on Cardiac Motion as Revealed by the Vivisection of Disease, based on a remarkable case of Sarcoma of the Heart. In April, 1907, a girl, aged 13 years, was admitted to hospital, cyanotic, orthopnœic, and apparently moribund, manifestly due to a mediastinal tumour, apparent to the left of the middle line, crossing the sternum and pressing on the trachea and gullet. As the symptoms increased the portions of the second and third ribs over the point where the pressure was most apparent were removed. In a week's time the patient was easier, and in two weeks she was free from any urgent symptoms of pressure. In July she was sent to a convalescent home in a comfortable condition, and a skiagram taken at that time showed a definite bulge indicating the tumour. On her return from the home she complained that she could not go upstairs or run about without getting breathless, and she was obviously not so well. She got more breathless, more cyanotic, and ate less, but there were no œdema, no ascites, and little albuminuria, and from first to last the cardiac pulsations were regular. She was conscious up to an hour of her death, which occurred on Oct. 3rd, 1907. Post mortem the contents of the thorax were removed entire, placed in formalin, and cut into five sections which well showed the relation of the tumour to the heart and lungs. The right auricle and right ventricle were absolutely transformed into sarcomatous growth, the chambers being perfectly fixed so that the right heart had no contractile power. Yet the patient never had ascites, anasarca, or evidence of stagnation of the systemic circulation. The circulation was conducted by the left ventricle and there was no heart block; consequently it would appear that the ventricle must have a definite rhythmical contractility independent of any previous auricular contraction.—The President also showed a lad, aged 19 years, who had undergone Thoracoplasty, the first operation of the kind that had ever been performed. He was admitted to hospital for a non-compensated obstructive aortic lesion and continuous cardiac pain, and as he did not improve he had the fifth and sixth

ribs removed over a considerable area in order to give the greatly hypertrophied heart more room. Since the operation the patient had lost his cardiac pain and considered that he had been greatly improved.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—The opening meeting of the session was held on Oct. 2nd, when Colonel T. H. Hendley, the President, delivered an address on the Identity of Problems, Aims, and Interests of the Medical Man at Home and Abroad, with Special Reference to India. As an old officer of the Indian Medical Service in both its military and civil branches he drew attention to the value of some knowledge of tropical disease by the civil members of the profession at home and gave illustrations to show how by such knowledge as well as by coöperation with those engaged in similar work abroad they might do much to prevent the introduction and spread of dire diseases in the home country. He referred to the use each section of the profession might be to the other and gratefully acknowledged what had been done in the past by the civil branch in support of the services, especially in all matters for the improvement of the health of sailors and soldiers. Referring to the colossal task of dealing with epidemic disease in India he noted with pleasure the promise of the Indian Government to give further facilities for the study of tropical disease by establishing a fully equipped bacteriological laboratory in the neighbourhood of Simla, but he could not help feeling that one great obstacle to progress in this direction was the constant changes of stations of medical officers, which, in his opinion, also gave rise to a good deal of the Indian "unrest," because mutual confidence and the power of doing good were destroyed under such conditions. He held that the time was approaching when the medical man would be more valued for his work in regard to the prevention of disease than for his skill in treatment thereof, and laid much stress on the need of general education in such questions for all medical students, so that in future the general practitioner might take a larger share in the duties connected with preventive medicine—e.g., medical inspection of school children and the like. He spoke with much misgiving as to the result of the separation in India of the sanitary from the general medical department, because he believed that coöperation and undivided control in dealing with disease in that country were essential to success.

BRIGHTON AND SUSSEX MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Oct. 1st, Mr. R. F. Jowers, the President, being in the chair.—Dr. A. W. Williams showed a girl with Tuberculous Onychia. Three finger nails had been practically destroyed and pus was oozing from their beds, but great improvement had taken place from tuberculin injections controlled by the opsonic index.—Mr. W. D. Calvert showed an Oxygen Gas Bag used on the continent for measuring the quantity of gas given.—Mr. Jowers then read his Presidential Address on Cancer of the Intestines. He thought a time would soon come when some substance would be found which inoculated would help the tissues to destroy cancer, but at present early removal was the only treatment. Cancer of the intestine was slow in disseminating itself and therefore the prognosis was good after removal, but symptoms were often almost absent until acute intestinal obstruction set in. The earlier symptoms were those of dyspepsia, and later constipation or constipation alternating with diarrhœa. Loss of flesh was not an early symptom, and patients with obstruction from growth were often extremely fat. Peristalsis of the intestine might be seen and gurgling at a particular point might be felt, or rarely a tumour which might be mobile and be difficult to diagnose from floating kidney. Bland-Sutton stated that 75 per cent. of growths occurred in the rectum, 23 per cent. in the large intestine, and 2 per cent. in the small intestine. In doubtful cases the abdomen should be examined under an anæsthetic and the rectum by the sigmoidoscope. Bismuth given 48 hours before an x-ray examination might show the site of stricture. Tuberculous disease of the colon and perisigmoiditis gave rise to difficulty in diagnosis. He then described five cases in which he had operated successfully. He thought that when there was acute obstruction only a colotomy should be done, leaving resection or short-circuiting till the patient was in better condition. He preferred after resection to use two rows of sutures without bobbins or other devices.

Reviews and Notices of Books.

The Pathology of the Eye. By J. HERBERT PARSONS, B.S., D.Sc. Lond., F.R.C.S. Eng., Assistant Ophthalmic Surgeon, University College Hospital; Assistant Surgeon, Royal London (Moorfields) Ophthalmic Hospital; and Ophthalmic Surgeon, Hospital for Sick Children, Great Ormond-street. Vol. IV., General Pathology. Part II. London: Henry Frowde and Hodder and Stoughton. 1908. Pp. 290. Price 15*s*.

THE present volume completes Mr. Parsons's treatise on the pathology of the eye and forms the second part of the general pathology of that organ. Like its three predecessors it is beautifully illustrated and printed, whilst each subsection has an appendix which supplies a full bibliography of the special subject under discussion, showing wide range of reading combined with, so far as we have been able to test it, accuracy in the numerous references given. The subjects here treated of are injuries of the eye, exophthalmos and enophthalmos, panophthalmitis, orbital cellulitis and thrombosis, thrombosis of the cavernous sinus, sympathetic ophthalmia, and the symptomatic diseases of the eye which cover a large field, embracing amongst many others the diseases of the eye associated with affections of the respiratory, circulatory, digestive, renal, and generative systems, and infectious diseases. Lastly, a section is devoted to heredity in relation to the eye, a subject that has only of late years attracted attention. Our knowledge of the conditions by which heredity is established and propagated from one generation to another will receive, we trust, elucidation from the extensive series of observations now being made on albinoism by Mr. E. Nettleship and Professor Karl Pearson.

We turn to the chapter on sympathetic ophthalmia with much interest, for in many cases great responsibility is thrown upon the practitioner, especially in country districts where the advice of an expert cannot be obtained easily. The earliest reference to sympathetic ophthalmia is stated by Mr. Parsons to be found in the oldest German text-book on ophthalmology published by Bartisch in 1583, and subsequent notices of the disease are to be found in the works of Le Dran, Demours, Wardrop, and Lawrence, but its true history commenced with Mackenzie. His researches, which have been corroborated by many subsequent observers, showed that sympathetic ophthalmia is particularly liable to occur in the course of a few weeks after a punctured wound in the ciliary region. Such injuries are especially likely to occur in children engaged in untying knots with two-pronged forks or knives or scissors. Plastic irido-cyclitis in the injured or exciting eye usually precedes the outbreak of the attack. The pathogenesis of the disease, notwithstanding the vast amount of research that has been devoted to it, is still obscure. The theories of its mode of transmission from one eye to the other are classified by Schirmer under the following heads: pure nerve theories, which include the optic nerve theory and the ciliary nerve theory; pure bacterial theories, some holding that transmission takes place by metastasis, others that it results from reversed venous flow, and others, again, that transmission is effected through the lymph channels. Then Meyer and Schmidt-Rimpler hold that both the nerves and bacteria play a part in the process and, lastly, there is the theory of toxins developed by the bacteria implicated. Mr. Parsons regards as the most probable of these various theories that one which has been indicated as the bacterial metastatic theory. According to this, the organism multiplies in the exciting eye; if this be early removed infection does not occur, but if organisms have escaped in quantity into the circulation sympathetic ophthalmia may follow. The cases where many months or years have elapsed before the

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secondary inflammation may be explained as being due to the bacteria, after having been encapsuled, having been set free by some blow or injury.

Mr. Parsons has a very excellently written section on obstruction (embolism and thrombosis) of the central artery of the retina in which all the cases that have been recorded are passed in review and critically examined. He seems to doubt the existence of spasm of the arteries, but we know not how otherwise to explain such cases as those of the late Mr. Birkett who, when nearly 90 years of age, lost the vision of one eye for about a quarter of an hour on three or four occasions, recovering it completely without any apparent change in the diameter of the artery when examined ophthalmoscopically shortly after recovery of vision. The loss of vision in one eye only, the absence of faintness or of any general symptoms, the short duration of the attack, and its termination in complete recovery are all symptoms that seem to be suggestive of spasm. Much interest also attaches to arterio-venous aneurysm such as may result from a punctured or from a gunshot wound, which does not appear to have come under the observation of Mr. Parsons. In one case where the aneurysm burst into the nostril and caused alarming hæmorrhage a permanent cure was effected by ligature of the common carotid.

The symptomatic diseases of the eye are discussed under the heads of diseases of the respiratory tract; diseases of the circulatory system, of the organs of digestion, of the urinary and generative organs, and of the blood; infectious diseases; and diseases of the nervous system. Of these the most interesting, as well perhaps as the most common, causes of eye troubles are the diseases of the circulatory system, of the nervous system, and of the kidneys. Speaking of the phenomena of pulsation in the intra-ocular vessels Mr. Parsons remarks that though we may be sure the arterial pressure is far above the normal intra-ocular pressure it would not be surprising if the pulse-wave were transmitted to the central artery of the retina and could be observed ophthalmoscopically, but, as a matter of fact, this hardly ever occurs. He recognises two types of arterial pulsation as visible under pathological conditions, a true pulse-wave accompanied by locomotion of the vessels, and an intermittent flow of blood or pressure pulse in which the arteries fill with blood only coincidently with the heart beats, being empty between them; this form is only visible upon the disc. It is seen in the pulsation of glaucoma and of syncope. The true arterial pulse occurs in cases of aortic regurgitation or aneurysm and is not confined to the disc. Capillary pulsation is seen only in aortic regurgitation. Venous pulsation occurs in three forms. The normal negative venous pulse, which occurs in 70 or 80 per cent. of persons, presents some difficulties which are thus met by Mr. Parsons. It is diastolic—that is, the veins are narrowed when the arteries are dilated, and it is thus explained by Mr. Parsons. The intra-ocular effect of the cardiac systole is constriction of the veins; at the same moment the blood is dammed back from the cavernous sinus. It cannot flow back into the eye but the communication with the facial and other veins tends to relieve the pressure. Soon after the diastole has commenced the pressure in the orbital veins is still high and the blood is streaming through the intra-ocular capillaries and the veins dilate. The positive venous pulse is presystolic-systolic and is due to tricuspid regurgitation, and lastly there is the transmitted centripetal venous pulse.

To write a sound and trustworthy treatise on the pathology of a special organ such as the eye requires peculiar qualifications in the author. He must, of course, possess a thorough knowledge of its normal anatomy and physiology. He must be familiar with the modern processes and methods of histological investigation, but above all he must have a wide field for the prosecution of his researches. All these qualifications meet in Mr. Parsons. The first volume he has published on "The Diseases of the Eye" and his numerous contributions to ophthalmic literature afford sufficient evidence that he is well acquainted with the minute anatomy as well as with the physiology of the eye, whilst his position as assistant surgeon and curator of the museum at the Royal London Ophthalmic Hospital has given him the opportunity of seeing clinically and subsequently making a microscopic examination of an immense number and almost infinite variety of the diseases affecting the eye. That he has thoroughly utilised his unrivalled opportunities conclusive evidence is afforded by his now completed treatise which embodies the results of his long labours. Whatever improvements may be effected in microscopic technique and in our knowledge of pathology this treatise will always constitute a book of reference adequately representing the state of our knowledge in these respects at the commencement of the twentieth century.

In conclusion we desire to congratulate Mr. Parsons on the completion of his extremely valuable work which not only stands alone in the English language but has no competitor in either French or German, and presents an extraordinary amount of original research as well as rare industry in the collection of cases and the accuracy with which they are quoted.

Common Affections of the Liver. By W. HALE WHITE, M.D. Lond., F.R.C.P. Lond., Senior Physician to, and Lecturer on Medicine at, Guy's Hospital. London: James Nisbet and Co., Limited. 1908. Pp. 302. Price 4*s.* 6*d.*

IN his modest preface to this work Dr. Hale White considers it necessary "to apologise for and explain the appearance of this little book." After a perusal of the volume we can assure the author that there is no occasion to do either. There was once a play which contained a "leading West-end physician" as one of its characters. That worthy exhorted his hearers not to malign the liver; at one time, he said, it was thought to serve some process in the animal economy, but, he added, that was nonsense, "it was designed by a munificent Providence for the sole benefit of the medical profession." Undoubtedly, by the laity, the liver is often made the scapegoat for irregularities on the part of the stomach, and it is naturally of importance that students and practitioners should have a full comprehension of the various morbid processes affecting the former organ. In the work now before us the more common affections of the liver are considered fully, the rarer conditions are only mentioned briefly, and the excessively unusual are omitted altogether.

After a brief description of the anatomy of the liver, Dr. White proceeds to a consideration of the condition known as hepatoptosis or wandering liver. He points out that most patients afflicted with a wandering liver have very weak abdominal muscles; hence they suffer much from faintness, dyspnœa, palpitation, and exhaustion on exertion, but these symptoms pass away when the patient lies down. Many mistakes in diagnosis are probably made, usually because the possibility of hepatoptosis has been forgotten.

Many persons when they over-eat and take insufficient exercise feel out of health. They complain of lassitude, slight headache, loss of appetite, and irregularity or constipation of the bowels; their urine is scanty, high-coloured, and often contains obvious lithates. There may be a feeling of fulness at the upper part of the abdomen. These symptoms are sometimes ascribed to "congestion of the liver." We agree with Dr. White when he says that there is no post-mortem or direct evidence that the liver is congested when such symptoms are present. Attention to diet and the state of the bowels usually effects a cure. As the

author points out, there are only two varieties of congestion of the liver generally recognised—that which follows backward pressure from disease of the heart or lungs and that which is met with in the tropics and is usually called tropical liver. He gives a good account of both of these conditions.

Dr. White's remarks on abscess of the liver and subphrenic abscess are well worthy of careful study. The causes of the latter affection are carefully discussed. He estimates that in this country about a quarter of the cases are due to perforation of a gastric ulcer, one-fifth to hepatic abscess, between a sixth and a fifth to appendicitis, and duodenal ulcer is the cause in almost 7 per cent. of the cases. The other causes, though numerous, are each very rare. The exact site of the abscess varies according to the cause, and the observations on this point will be found interesting and instructive. Leucocytosis is considered to be a valuable diagnostic sign.

The section on cirrhosis of the liver is one of the best in the book. In regard to the alleged difference between "hypertrophic" and "atrophic" cirrhosis, Dr. White holds the view now adopted by the majority of observers—namely, that the cirrhotic liver is at first larger than normal, and then, among those patients who survive, shrinks so as to become of normal weight, and then, continuing to shrink, becomes of less weight than normal in those who still survive. The etiology of cirrhosis of the liver is fully discussed and the conclusion is arrived at that alcohol is not solely responsible for the condition but that there are other factors of which little is known.

We can cordially recommend this volume to our readers. It contains a large amount of useful and practical information on affections which are commonly met with but which are not sufficiently dealt with in the ordinary text-books on medicine. The remarks on treatment should be especially noted and the differential diagnosis of the various diseases and those which simulate them is carefully considered.

Husband's Practice of Medicine. Sixth edition. Rewritten and Enlarged by ROBERT F. C. LEITH, M.A., M.B., C.M. Edin., F.R.C.P. Edin., M.Sc. Birm., Professor of Pathology and Bacteriology, University of Birmingham; and ROBERT A. FLEMING, M.A., M.D. Edin., F.R.C.P. Edin., Lecturer on the Principles and Practice of Medicine, School of Medicine of the Royal Colleges, Edinburgh; Assistant Physician, Royal Infirmary, Edinburgh. Edinburgh: E. and S. Livingstone. 1908. Pp. 1141. Price 12*s.*

THIS work is designed for the use of students and practitioners, and the authors have attempted to provide a concise, trustworthy, and modern text-book sufficient for all practical purposes. In the present edition the aim and scope of the previous editions have been preserved, but in order to bring the book up to date a re-writing rather than revision was found to be necessary.

We are not in favour of small text-books on medicine—that is to say, books that are written with the idea of providing students with sufficient knowledge to pass their examinations and nothing more. Although this manual cannot be said to come under such a heading, we do not think that it can compete with the works usually used by students, at any rate in London. The sections on etiology, pathology, and symptomatology are for the most part accurate, explicit, and brought up to modern scientific knowledge. The remarks on treatment, however, might with advantage be amplified. For instance, the description given of the more recent therapeutics of pulmonary tuberculosis is lacking in detail and could not be satisfactorily followed in practice.

The classification of disease is not altogether in accordance with the nomenclature adopted by the Royal College of Physicians of London. Pneumonia finds a place under "Inflammations of the Lung," and rheumatic fever is considered in the section devoted to "General Diseases of Obscure Origin." We think that it would have been better if the authors had followed the plan now generally adopted of placing these two conditions under the heading of "Infective Diseases."

For purposes of refreshing the memory this book may be useful to students and practitioners. It is written in a style which is easy to follow, and owing to a carefully compiled index reference to any particular point can readily be made.

LIBRARY TABLE.

Nouveau Traité de Médecine et de Thérapeutique. Tome XIII.: Cancer. Par P. MÉNÉTRIER, Professeur Agrégé à la Faculté de Médecine de Paris; Médecin de l'Hôpital Tenon. Avec 114 figures intercalées dans le texte. Paris: J. B. Baillière et Fils. 1908. Pp. 662. Price 12 francs.—This is one of the most interesting volumes of the valuable treatise on medicine and surgery which is now being published in Paris. Professor Ménétrier has written this book with thoroughness and he has been careful to maintain a judicial attitude on debateable points and in few other diseases do so many debateable points exist as in cancer. A historical account commences the work and it appears to contain all that is necessary, and this is followed by a description of the cancerous processes and of the varieties of cancer. The section on etiology is naturally of especial interest and the whole subject is fully discussed. The main conclusion at which the author arrives is that cancer is associated with chronic irritation. In regard to the question of the parasitic origin of cancer he maintains that all the appearances hitherto described as representing parasites are due to internal cell changes or cellular inclusions, though he does not deny the possibility of the presence of a micro-organism. The chapter on treatment is general and does not consider individual organs, but in it are described most of the methods which have been employed for the cure or the relief of cancer. A large portion of the chapter deals with the use of the x rays. The book contains a very good, though not quite complete, account of our present knowledge of malignant disease. Like many other French books it has, unfortunately, no index.

The Practice of Obstetrics. By American Authors. Edited by CHARLES JEWETT, M.D., Professor of Obstetrics and Gynæcology in the Long Island Hospital, New York. Third edition, revised and enlarged. With 484 engravings, 46 of which are in colours, and 36 coloured plates. London: Henry Kimpton. 1907. Pp. 820. Price 21*s.* net.—Some five years have elapsed since the second edition of this work appeared and the progress of obstetric medicine during that time has necessitated a good deal of revision in the book. Several of the chapters have been almost entirely rewritten; amongst them are those on the Changes in the Maternal Organism caused by Pregnancy, the Duration of Pregnancy, the Hygiene and Management of Pregnancy, the Anomalies and Diseases of the Fœtal Appendages, and the Diseases of Pregnancy. The revision, on the whole, has been well done; the chapter on the Development of the Ovum, however, is still mainly concerned with the facts as they relate to animals and the author has not taken sufficient trouble to indicate how far his conclusions differ from those ascertained up to the present time with regard to the early human ovum. There is an interesting chapter on the Toxæmia of Pregnancy, and in the section on the changes which occur in the urine Dr. W. S. Stone points out that while high percentages of ammonia nitrogen are usually associated with serious clinical states they are not found to correspond closely enough to the different grades of the disease to use any definite percentage,

as has been recommended by Whitridge Williams for a clinical guide in the treatment. A short account of pubiotomy has been added in which the possibilities of this operation are hardly done justice to. The work is undoubtedly an interesting and stimulating one to read and contains, as we have pointed out in our reviews of former editions, many most excellent articles. It is true that they do not all attain the same standard, but after all that is only to be expected in a book which is the work of many authors. A number of new illustrations have been added and this third edition retains all the good qualities of the two former editions.

Cancer. By G. SHERMAN BIGG, F.R.C.S. Edin., M.R.C.S. Eng., L.S.A., late Surgeon-Captain, Army Medical Staff, &c. London: Baillière, Tindall, and Cox. 1907. Pp. 35. Price 3*s.* 6*d.* net.—The author maintains that all cancers begin with "congestion" and that at first the disease is not malignant. We certainly cannot agree with this, nor is it correct to say that all surgeons "believe in the early benignity of the tumour." He claims that medicinal treatment of cancer does not receive its fair share of notice, and to this we must give a qualified assent, for many suggested methods deserve a trial in cases which are unsuitable for operation.

Lateral Curvature of the Spine and Round Shoulders. By ROBERT W. LOVETT, M.D., Associate Surgeon to the Children's Hospital, Boston; Surgeon to the Infants' Hospital; Instructor in Orthopædic Surgery, Harvard Medical School; &c. With 154 illustrations. London: Rebman, Limited. 1907. Pp. 188. Price 7*s.* 6*d.* net.—This book devotes much space to an admirable account of the anatomy of the spinal column and thorax in so far as it is concerned with the mechanism of lateral curvature of the spine. This part is well illustrated. The descriptions of the pathology and mode of production of scoliosis are good. The discussion of the etiology is adequate, and the author gives due credit to habit and occupation, as at school, in the production of lateral curvature in children. Treatment occupies, as it should, a large proportion of the book, and the author distinguishes between the two main types of scoliosis, the functional and the organic; he devotes much consideration to gymnastic exercises and he emphasises the importance of continuing them for a sufficiently long time. Too often parents expect great results in a few weeks or months. He does not, however, confine his treatment to exercises; when necessary he employs passive stretching and forcible correction by means of plaster jackets. The book is very temperate and reasonable.

Electric Ions and their Use in Medicine. By Professor STEPHANE LEDUC. Translated by R. W. MACKENNA, M.A., M.B. Edin. London: Rebman, Limited. 1908. Pp. 70. Price 2*s.* 6*d.* net.—The feature of this little book is that it deals with the practical application of ions in medicine. At the outset the author gives a concise account of the development of the theory, the opening chapters being devoted to considerations of osmotic pressure, the ions, and the general theory of electricity. In the fourth chapter we come to a discussion of the electrolysis of living tissues in which the author shows that all the effects produced by the electric current in living beings are electrolytic effects. This follows seeing that living tissues impregnated with saline solutions are electrolytes. The introduction to the human body of cations under the anode and anions under the cathode is next discussed. In other words the author is dealing with the introduction of drugs by electrolysis and the obtaining of therapeutic effects by this method. He then proceeds to point out how this method of kataphoresis may be employed with advantage in regard to the administration of drugs as medicinal agents —i.e., treatment by ions. Several examples follow. The work is one of considerable interest to the medical profession and will be read with profit by all those to whom the subject and its applications are comparatively new. The text is not burdened by theoretical considerations but is clear, the examples quoted serving further to give an intelligent interpretation of the subject.

A Laboratory Outline of General Chemistry. By ALEXANDER SMITH, B.Sc. Edin., Ph.D. Third edition. London: George Bell and Sons; New York: The Century Co. 1907. Pp. 136. Price 2*s.* 6*d.*—This is a sound practical guide for use in the laboratory. Practical directions are not only given for making experiments but also in regard to the construction of the apparatus for the purpose. The plan adopted is calculated to do something more than to teach the student a mere set of test-tube reactions. He is asked to face the reason of certain reactions, he is further asked to deduce for himself the meaning of certain changes; in a word, he is asked to exercise his original faculty and to employ his powers of observation. This is a method of teaching which we have consistently upheld and is what the author calls cultivating "rational experimentation."

JOURNALS AND MAGAZINES.

The Journal of Physiology. Edited by J. N. LANGLEY, Sc.D., F.R.S. Vol. XXXVII., No. 4. London: C. F. Clay. Sept. 16th, 1908. Price 4*s.*—The articles contained in this part are: 1. On the Contraction of Muscle, chiefly in Relation to the Presence of "Receptive" Substances, Part III., by J. N. Langley, F.R.S., Professor of Physiology in the University of Cambridge. In this article, which is illustrated by five figures in the text, Professor Langley discusses the reaction of frogs' muscle to nicotine after denervation, taking note of the effect of denervation on both twitching and tonic contraction. The frog was newly caught, anæsthetised, and placed in a tank of water in a cool chamber. The nerve, varying in different cases, was divided and after a variable period the animal was killed by pithing and the condition of nerve and muscle investigated. The results obtained were that at all times up to 100 days punctiform application of dilute nicotine (0·01—0·1 per cent.) causes local tonic contraction and fibrillar twitching in the denervated muscle and hence produces its effect by a direct action on muscle and not by action on nerve endings. Professor Langley suggests that the contractile molecule of the muscle fibre has a number of side-chain or receptive radicles and that nicotine combines with one of these causing tonic contraction and with another causing fibrillar twitching. 2. On the Relative Parts Played by Nervous and Chemical Factors in the Regulation of Respiration, by F. H. Scott, Ph.D., M.B. The author shows in his article, which is illustrated by 16 tracings in the text, that the respiratory mechanism may be stimulated by slight amounts of carbon dioxide or great diminution of oxygen in the inspired air. In animals with vagi intact these lead to an increase of rhythm, as well as to increased depth of respiration. If the vagi have been divided the depth increases greatly but the rhythm does not practically alter. The vagi in reference to the movements of respiration are to be regarded in the same light as the sensory nerves of muscle. 3. On the Death of Leucocytes, by H. C. Ross, late Surgeon R.N., Liverpool. Mr. Ross finds that staining of the nucleus with methylene blue and various salts does not take place till death has occurred. Death is also evidenced by the liquefaction of the jelly-like cytoplasm. 4. Mr. Ross has also another article on the Vacuolation of Leucocytes and the Liquefaction of their Cytoplasm. 5. An Apparatus for the Perfusion of the Isolated Mammalian Heart, by T. G. Brodie, M.D. Lond., F.R.S., and Winifred C. Cullis, D.Sc. 6. The Optical Activity of So-called

Protagon. 7. On a New Physical Phenomenon observed in Connexion with the Optical Activity of So-called Protagon. Both of these articles are by Otto Rosenheim and M. Christine Tebb.

Reports and Analytical Records
FROM
THE LANCET LABORATORY.

RONUK SANITARY POLISHES.
(RONUK, LIMITED, PORTSLADE, BRIGHTON, SUSSEX, AND 86, YORK-ROAD, LAMBETH, LONDON, S.E.)

No bacteriological refinements are needed to prove the statement that a dirty, ill-kept floor is contrary to all sanitary principles. When it is remembered that a floor serves, after all, as a big depositing ground, collecting the inevitable dirt and dust of daily wear and tear, the importance of keeping the floor clean is obvious. Of the methods which aim at securing this cleanly condition preference must be given to the studied application of a polish provided that the polish fulfils certain conditions. It should not only have polishing qualities which satisfy the æsthetic requirement: it should be aseptic and antiseptic; it should fill the pores of the wood, so that a uniform and durable surface is formed which from time to time can be renovated with little labour. The last point is of importance since if a polish is easily maintained in a satisfactory condition by occasional dry rubbing an inducement is held out to keep the floors constantly and scientifically clean. The essentials of a good polish have been carefully studied by the manufacturers of the Ronuk polishes, who have devoted special attention to the sanitary treatment of floors. Composed largely of antiseptic materials which possess the same germicidal properties as common disinfectants but are without their disagreeable characters of smell and corrosive qualities Ronuk is an excellent floor polish, preserving a sanitary condition of the floor, sealing up all germ harbours, and presenting a surface which pleasingly evidences an appreciation of sanitary principles. These remarks are based on our own practical observations. There are several preparations of which Ronuk is the basis but it is sufficient to mention two which are of medical interest as they are especially adapted for hospital requirements. Hospital Ronuk liquid is suitable for keeping the flooring in good condition in asylums and other institutions in which a constant cleaning and polishing are required. It is ready for immediate use but is not suitable as a first application—that is to say, on new wood. Hospital Ronuk concentrated is designed, on the other hand, for the first preparation and preservation of all kinds of wood flooring. It can be diluted, if need be, with turpentine according to the requirements of the case. It serves as an excellent application for polished wood block, parquet, and stained floors, as well as for leather and furniture. Both preparations worthily rank as sanitary appliances.

VIRCHOW QUELLE.
(W. WOLFF KONIGSBERG, 73, CAMBRIDGE-GARDENS, NORTH KENSINGTON, LONDON, W.)

The Virchow Quelle is described as an isotonic spring, its mineral salts corresponding approximately with the amount present in the blood. On analysis we found 8·48 grammes of sodium chloride per litre, 0·175 gramme of calcium sulphate, and 0·66 gramme of calcium carbonate, the total salts amounting to 9·315 grammes per litre. It will be seen, therefore, that this natural water shows in round figures the composition of a normal saline solution. In addition we found distinct traces of lithium. It is reported to be valuable in gouty conditions and in gastric and intestinal catarrh.

BOUILLON IN CUBES (MAGGI).
(COSENZA AND CO., 95, WIGMORE-STREET, CAVENDISH-SQUARE, LONDON, W.)

The cubes are somewhat smaller in size than ordinary cube sugar. They enable a nourishing beef tea to be prepared readily. We found proteins present besides extractives, so that it is right to say that these cubes possess some nutritive value. The taste of the broth, however, is somewhat excessively saline. The cubes furnish a very convenient means of preparing a palatable and to some extent nutritious soup.

NUTRICIA MILK.
(A. STIEBER, 7, EASTCHEAP, LONDON, E.C.)

This is milk so modified as to conform to the composition of human milk. This statement we find is correct in view of the following results of analysis which we obtained: milk fat, 3·20 per cent.; sugar, 6·50 per cent.; protein, 1·38 per cent.; and mineral matter, 0·42 per cent. The method of its preparation is due to Professor Backhaus of Königsberg. Cow's milk is treated with rennet which removes part of the indigestible casein, while some of it, together with the albumins, is coverted into a more soluble and less easily precipitated form of protein. The separated casein withdraws some of the salts, so that the whey contains an amount which approximates to that contained in human milk. Cream and milk-sugar are subsequently added. The milk is reported to give excellent results in infant feeding.

MALTED NUTS.
(THE INTERNATIONAL HEALTH ASSOCIATION, LIMITED, STANDBOROUGH PARK, WATFORD, HERTS.)

This food, according to our analysis, contains in good proportion all the elements required for the nourishment of the body. The following were the results: moisture, 7·60 per cent.; mineral matter, 2·20 per cent.; protein, 19·25 per cent.; fat, 37·20 per cent.; maltose, 29·62 per cent.; and starch, 4·13 per cent. The carbohydrates appear to be predigested and the fat is stated to be emulsified. However that may be, the flavour of the food is not satisfactory, the fatty portion having a flavour unmistakeably like that of rancid fat.

(1) SABROMIN; AND (2) ARSACETIN.
(MEISTER LUCIUS AND BRÜNING, 51, ST. MARY AXE, LONDON, E.C.)

(1) Sabromin is described as a new bromine preparation consisting of a calcium salt of dibromo-behenic acid. Behenic acid is derived from oil of ben. We had no difficulty in separating bromine from the substance. It is regarded as therapeutically superior to the ordinary bromides, being free from the side-effects of those salts known a "brominism," while it has the same sedative action Sabromin is without taste and is insoluble in water or alcohol. The daily dose is from 15 to 45 grains. (2) Arsacetin represents a further addition to modern arsenotherapy and has been employed in sleeping sickness and in syphilis. Its composition is conveyed in its long chemical name, which is sodium para-acetyl-aminophenylarsinate-acetylarsanilate. It is said to possess a low toxicity while it keeps well and does not decompose when sterilised in aqueous solution.

THREE STAR BRANDY.
(MARTELL AND CO., COGNAC. AGENTS: MATTHEW CLARK AND SONS, 6 AND 7, GREAT TOWER-STREET, LONDON, E.C.)

We examined this Cognac brandy on a previous occasion—in fact, some eight or nine years ago; but it is of interest to record the results of a recent analysis, inasmuch as they confirm our previous opinion that it is a standard product. The present sample, as a matter of fact, shows a further improvement in the light both of analytical tests and the

test of the palate in regard to age and quality. We conclude that the proportion of fine old Cognac brandy has been distinctly increased, so that the sample approaches the excellent characters of a genuine liqueur brandy. It has what connoisseurs term the "smooth and silky" taste of an old matured Cognac brandy. Analysis gave the following results: alcohol, by volume, 48·21 per cent.; and extractives, 0·67 per cent. In regard to secondary products the following were the results recorded in grammes per 100 litres of absolute alcohol present: volatile acidity, 108; aldehyde, 12; furfural, 2; ethers, 128; and higher alcohols, 200. These results show a composition midway between a three star brandy and an old liqueur. It is the kind of spirit that should be chosen for therapeutic purposes on account of its mellowness and palatability.

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A MEETING of the Permanent Committee of the International Association of the Medical Press was held in one of the beautiful rooms of the Faculté de Médecine in Paris on Saturday, Oct. 3rd. The members of the committee present were Professor Posner, Professor His, Professor Kutner, and Professor Casper, representing Germany; Dr. Dawson Williams, Dr. Squire Sprigge, and Mr. L. E. Creasy, representing England; Dr. de Jace and Dr. Péchère, representing Belgium; Dr. Tscherning, representing Denmark; Dr. Nogueira, representing Spain: Dr. Lucas-Championnière, Dr. Baudouin, and Dr. Blondel, representing France; Dr. Ceccherelli, representing Italy; and Dr. de Illyes, representing Hungary. The members were invited to dine by the French committee on the evening of Oct. 2nd, when many well-known French medical men were invited to meet them. An admirable dinner was provided at the Restaurant Marguery, the wine being of the quality for which the house is famous. A few informal speeches did nothing to spoil the pleasure of a thoroughly cordial evening.

On Saturday morning at 9.30 the committee assembled in the kind of apartment which is not in England usually associated with scientific or business work. A large, lofty, well-lighted chamber panelled in eighteenth century style, with appropriate busts in niches and appropriate pictures on the walls, with elegant chandeliers and a polished floor, was more suggestive of a diplomatic reception. Professor Posner, the president of the committee, took the chair and the proceedings were entered upon without delay. Dr. Blondel, general secretary of the association, having read the report of the last meeting a close debate ensued upon the attitude that should be taken by the Association at the International Congress of Medicine, which will meet next year at Budapest. Professor Posner proposed that all journalists present at that Congress should be invited to take part in a debate upon the question now especially interesting the Association—viz., the purification of the medical press and the prevention of venality—but Dr. Lucas-Championnière pointed out that danger lay in this direction, as some of the offenders might be present and appear to determine by their votes the issue of the deliberations of the Association. Professor Kutner thought that this difficulty could be got over by the way in which the agenda of the meeting could be drawn up, but Dr. Dawson Williams, speaking also for his English colleagues, thought that Dr. Lucas-Championnière's view was right and that there should be no general invitation to all journalists. Here Dr. Baudouin explained to the meeting the difference between a congress and a public meeting, while Dr. de Jace pointed out the value to medical journalism of the opportunity afforded by the International Congress to make known the work of the Association. It was ultimately decided that a *séance générale* of some informal character should be held at Budapest, at which the action of the Association could be brought forward, but the details will have to be decided later.

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The various delegates then presented the reports of their branches. The report of the British branch showed that at the annual representative meeting of the British Medical Association the Central Ethical Committee of the Association cordially received the above resolutions of the International Association of the Medical Press. The resolutions were approved also at the plenary session of the representative meeting, with the addition that the Central Ethical Committee of the British Medical Association was instructed to take steps to secure that authors shall not themselves republish such articles without having previously obtained the sanction of the editor or publisher.

Professor His and Professor Posner told of the good work that had been done in Germany, and Dr. de Jace explained how certain persons had got over the difficulty of persuading authors apparently too conscientious to take money for their articles by offering extravagant prices for the right to reprint the articles. Dr. Baudouin and Dr. Lucas-Championnière told the meeting of the difficulties experienced in France through corrupt journalism, wholesale distribution of journals being made gratuitously, entirely for the sake of disseminating some puff, the rest of the literary matter being stolen from more responsible organs. The dangers also run by honest medical journals in criticising improper medical procedures were touched upon, Dr. Sprigge alluding to the case of Tucker *v.* Wakley.

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The inconvenient habits of authors who send their work to many journals simultaneously or to foreign journals without mention of previous appearance at home were then alluded to, the subject being introduced for discussion by the German representatives; after which the sitting closed, having got through a fairly extensive list of agenda. The main outcome of an interesting meeting was the decision of the Permanent Committee to make use of the opportunity offered by the International Congress of Medicine at Budapest to further the objects of the International Association of the Medical Press, but it was felt that this must be done while preserving an independent entity—i.e., that the Association must not allow itself to be constituted a journalistic section of the Congress. It should be added that Dr. and Mrs. Blondel invited many of the representatives, and their wives when they were thus accompanied, to dinner at their beautiful flat on the Boulevard Haussmann.

THE LANCET.

LONDON: SATURDAY, OCTOBER 17, 1908.

The Inspection of School Children by County Medical Officers of Health.

THE passage of the Education (Administrative Provisions) Act, 1907, through Parliament will probably be responsible for a greater quickening of the sanitary evolution of the country than has occurred since the passing of the Public Health Act, 1875, and even ten years hence there will, we venture to predict, have been an enormous increase in the number of officers in the public health service as a whole. But all this will not be accomplished without considerable administrative difficulties involving both the central and the local authorities as well as the medical profession, and no scheme will succeed which does not evince on the part of those in authority a desire or a willingness to deal in a fair and comprehensive spirit with the claims of the medical profession. Recently Parliament itself has manifested a disposition to impose duties on the medical profession without a proper regard for the trouble and responsibilities which such duties involve. This is the more surprising since the present Government is composed largely of men who hold that the labourer is worthy of his hire; but it must, we think, be admitted that in dealing with the medical profession this admirable doctrine seems to have been somewhat overlooked. It cannot, of course, be expected that a great national movement, involving the inspection of all our school children at least on three occasions throughout their school career, is to be accomplished without some difficulties or friction, but it must be said that, speaking generally, the local education authorities throughout the country are accepting the position, if not with enthusiasm at least with a desire to fulfil their obligations as well as local circumstances will allow.

But now and again there are indications of a desire to economise in an unwise fashion by endeavouring to carry out the inspection of school children at the expense of general sanitary administration, and we are somewhat afraid that this may be the case in Herefordshire where the county council is, it appears, making efforts to secure a county medical officer of health under the provisions of Section 18 of the Local Government Act of 1888, and to impose upon him the duty of actually inspecting all the school children in the county—a proposal which seems to be entirely out of harmony with the spirit of county health administration and to be, in fact, a somewhat reactionary step. The county council has, we understand, no objection to the provision of assistants to the county medical officer provided that he defrays the expenses out of his own pocket, but it does not seem to us that a proposal such as this is at all statesmanlike or even businesslike on the part of the county council. There are in the administrative county 179 schools containing about 16,000 children, and to expect a county medical officer of health to undertake detailed inspection of these numbers and at the same time to perform the duties more particularly attaching to the post of county medical officer is, we think, rather a misconception of the whole position of this officer who was meant by the framers of the Act of 1888 to be a supervisory officer in the broader sense of the term. So far as we can gather from the reports that have reached us the county council has been hoping to obtain the services of Mr. HERBERT JONES who as medical officer of health of the Herefordshire combined district and as one who has had most valuable experience of sanitary administration is in every way eminently well fitted to occupy the position. But Mr. JONES very rightly demurs to the proposals as regards the inspection of school children, and he stipulates that the cost of any medical assistance which he may require in carrying out the inspection should be paid for by the county council. We imagine that this, too, may be the view which will be taken by the Board of Education—at least, this seems to be the interpretation to be placed upon Section 7 (*a*) of the Board's circular No. 576, wherein it is pointed out that county councils should "instruct their county medical officer, who will be responsible for smooth and effectual administration, to advise their education committee and to supervise the new work, its actual execution being deputed wholly or partly to suitable medical colleagues or assistants, who either will be appointed specially for the purpose under him or will be local medical officers of health, and to whom groups of schools may be allocated." This same spirit of supervision seems to run through all the memoranda issued by the central education authority in Whitehall.

But apart altogether from this the proposal appears to be one which cannot be commended on general sanitary grounds in that it would bear the interpretation of relegating to a secondary position all those important matters of public health which concern the county medical officer. The primary duty of this official should be to centralise and to supervise the public health administration of the county, and such a proposal as that of the Herefordshire county council would bid fair to occupy the whole time of a county medical officer with work which he was never intended to perform, for which he might not be especially well fitted, and which ought to be carried out under his supervision by general medical practitioners having special qualifications for the work. This Herefordshire project brings into prominence the necessity for defining the duties of county medical officers of health in much the same fashion as is already done in the case of district medical officers of health, and we are glad to see that this is the course proposed in Part III. of Mr. BURNS'S Town Planning Bill. This may prove rather a difficult matter if one committee of a county council exhibits a tendency, as in this case, to monopolise entirely the time of the county medical officer of health, as the sanitary committee may wish to enter a claim for at least the part-time services of this officer.

test of the palate in regard to age and quality. We conclude that the proportion of fine old Cognac brandy has been distinctly increased, so that the sample approaches the excellent characters of a genuine liqueur brandy. It has what connoisseurs term the "smooth and silky" taste of an old matured Cognac brandy. Analysis gave the following results: alcohol, by volume, 48·21 per cent.; and extractives, 0·67 per cent. In regard to secondary products the following were the results recorded in grammes per 100 litres of absolute alcohol present: volatile acidity, 108; aldehyde, 12; furfural, 2; ethers, 128; and higher alcohols, 200. These results show a composition midway between a three star brandy and an old liqueur. It is the kind of spirit that should be chosen for therapeutic purposes on account of its mellowness and palatability.

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The Inspection of School Children by County Medical Officers of Health.

THE passage of the Education (Administrative Provisions) Act, 1907, through Parliament will probably be responsible for a greater quickening of the sanitary evolution of the country than has occurred since the passing of the Public Health Act, 1875, and even ten years hence there will, we venture to predict, have been an enormous increase in the number of officers in the public health service as a whole. But all this will not be accomplished without considerable administrative difficulties involving both the central and the local authorities as well as the medical profession, and no scheme will succeed which does not evince on the part of those in authority a desire or a willingness to deal in a fair and comprehensive spirit with the claims of the medical profession. Recently Parliament itself has manifested a disposition to impose duties on the medical profession without a proper regard for the trouble and responsibilities which such duties involve. This is the more surprising since the present Government is composed largely of men who hold that the labourer is worthy of his hire; but it must, we think, be admitted that in dealing with the medical profession this admirable doctrine seems to have been somewhat overlooked. It cannot, of course, be expected that a great national movement, involving the inspection of all our school children at least on three occasions throughout their school career, is to be accomplished without some difficulties or friction, but it must be said that, speaking generally, the local education authorities throughout the country are accepting the position, if not with enthusiasm at least with a desire to fulfil their obligations as well as local circumstances will allow.

But now and again there are indications of a desire to economise in an unwise fashion by endeavouring to carry out the inspection of school children at the expense of general sanitary administration, and we are somewhat afraid that this may be the case in Herefordshire where the county council is, it appears, making efforts to secure a county medical officer of health under the provisions of Section 18 of the Local Government Act of 1888, and to impose upon him the duty of actually inspecting all the school children in the county—a proposal which seems to be entirely out of harmony with the spirit of county health administration and to be, in fact, a somewhat reactionary step. The county council has, we understand, no objection to the provision of assistants to the county medical officer provided that he defrays the expenses out of his own pocket, but it does not seem to us that a proposal such as this is at all statesmanlike or even businesslike on the part of the county council. There are in the administrative county 179 schools containing about 16,000 children, and to expect a county medical officer of health to undertake detailed inspection of these numbers and at the same time to perform the duties more particularly attaching to the post of county medical officer is, we think, rather a misconception of the whole position of this officer who was meant by the framers of the Act of 1888 to be a supervisory officer in the broader sense of the term. So far as we can gather from the reports that have reached us the county council has been hoping to obtain the services of Mr. HERBERT JONES who as medical officer of health of the Herefordshire combined district and as one who has had most valuable experience of sanitary administration is in every way eminently well fitted to occupy the position. But Mr. JONES very rightly demurs to the proposals as regards the inspection of school children, and he stipulates that the cost of any medical assistance which he may require in carrying out the inspection should be paid for by the county council. We imagine that this, too, may be the view which will be taken by the Board of Education—at least, this seems to be the interpretation to be placed upon Section 7 (*a*) of the Board's circular No. 576, wherein it is pointed out that county councils should "instruct their county medical officer, who will be responsible for smooth and effectual administration, to advise their education committee and to supervise the new work, its actual execution being deputed wholly or partly to suitable medical colleagues or assistants, who either will be appointed specially for the purpose under him or will be local medical officers of health, and to whom groups of schools may be allocated." This same spirit of supervision seems to run through all the memoranda issued by the central education authority in Whitehall.

But apart altogether from this the proposal appears to be one which cannot be commended on general sanitary grounds in that it would bear the interpretation of relegating to a secondary position all those important matters of public health which concern the county medical officer. The primary duty of this official should be to centralise and to supervise the public health administration of the county, and such a proposal as that of the Herefordshire county council would bid fair to occupy the whole time of a county medical officer with work which he was never intended to perform, for which he might not be especially well fitted, and which ought to be carried out under his supervision by general medical practitioners having special qualifications for the work. This Herefordshire project brings into prominence the necessity for defining the duties of county medical officers of health in much the same fashion as is already done in the case of district medical officers of health, and we are glad to see that this is the course proposed in Part III. of Mr. BURNS's Town Planning Bill. This may prove rather a difficult matter if one committee of a county council exhibits a tendency, as in this case, to monopolise entirely the time of the county medical officer of health, as the sanitary committee may wish to enter a claim for at least the part-time services of this officer.

The Annual Report of the Medical Inspector of Prisons for the Year 1907-08.

DURING the year ended March 31st last 211,519 prisoners —166,285 males and 45,234 females—were received into local prisons in England and Wales on conviction, as debtors or in default of finding sureties, or on remand, and the average daily population was 17,719—viz., 15,055 males and 2664 females. Of the total number received 9545—viz., 6375 males and 3170 females—required hospital treatment during some part of their imprisonment, and 17,143 others suffering from minor ailments were treated as out-patients. The higher proportion of hospital cases amongst female prisoners is a regular feature of these returns and appears to be due in the main to the relatively greater prevalence of alcoholism in women recidivists, especially amongst prostitutes and women convicted of petty offences. There were 107 deaths during the year, ten by judicial execution, seven by suicide, and 90—71 of males and 19 of females—from natural causes, the death-rate from such causes amounting therefore to 0·42 per 1000 prisoners received. The corresponding figure for 1906–07 was 0·51 per 1000. 12 deaths were ascribed to pulmonary tuberculosis as compared with 18 during the preceding year. Of the prisoners who committed suicide during the year all but one were males. It may be noted in this connexion that suicide in prison—doubtless owing to the very special conditions of discipline and supervision—does not appear to be influenced by the same forces which govern the movement of this phenomenon in the general population; its frequency changes very little from year to year and has been quite unaffected by the increase in suicidal tendency which has been observed in this country during the last decade. In the large majority of cases prisoners who kill themselves are either awaiting trial or have just begun to serve their sentences and it is rather surprising to note that severity of sentence does not seem to have anything to do with suicidal tendency, the only instances where there is any appearance of such a relationship being in murderers condemned to penal servitude for life, and in such cases the weight of evidence goes to show that the proneness to suicide has its origin in the same organic conditions that produced the homicidal impulse and is not connected with the nature or degree of the punishment. Another peculiarity of prison suicide is its earlier age incidence; while in the general population above 15 years of age the proportion of male suicides under 35 years is only about 24 per cent., it is nearly 56 per cent. in prisoners; this fact is not explained by any difference in age constitution between the prison and the general population, but would seem rather to be due to the obvious difficulties which encounter the would-be suicide in prison and which require for their removal an amount of energy and determination more congenial to youth than to age. During the year 29 prisoners were reported as suffering from infectious diseases which in most instances they had contracted prior to admission. The rarity of such diseases in prison is a remarkable testimony to the good sanitary condition of our penal establishments, and when taken in connexion with the very low death-rate and the relatively small amount of serious illness in the prison population is highly creditable to the medical department.

The number of persons certified insane in the local prisons during the year was 128, of whom 107 were males and 21 females. In most of the cases the prisoners either were obviously insane on reception or showed symptoms of insanity so early in their imprisonment as to indicate quite clearly that the disease was in process of evolution at the time of the offence. Crimes committed in these circumstances may therefore be regarded in the light of subsequent developments as symptoms of insanity and on this account their characteristics and their relation to the different forms of mental disease have considerable interest both from a purely psychological and from a medico-legal point of view. To make the facts more readily accessible under this aspect Dr. H. SMALLEY has for some years past included in his statistical returns an analytical table showing the relation of the several clinical varieties of insanity to the several forms of delinquency; and in the present report he has summarised in a single table on the same lines the figures for the last ten years, which refer to a total number of 1334 cases—viz., 1045 in males and 289 in females. It is pointed out in the report that the figures give a somewhat imperfect view of insane crime, as they comprise only the cases of insanity occurring in offenders who have been sentenced as sane and do not include the cases in which persons guilty of crime have been committed to lunatic asylums without being brought to trial or have been found insane on indictment. Despite these limitations, however, they have a value of their own as indicating the connexion of crime with insanity in these cases at all events—and they are in many respects the most interesting—in which the disorders of social conduct are the first and the predominant manifestations of the disease of mind. The table unfortunately does not admit of condensation, so we must be content with commending it to the notice of persons interested in the subject as a very notable contribution to the study of the criminality of the insane. 409 prisoners—352 males and 57 females—were reported last year as being so weak-minded as to be unfit for ordinary penal discipline. This is slightly in excess of the number of such cases reported in 1906–07. The characteristics of the individuals who come into this category and the difficulties which beset their treatment in prison have been pointed out again and again by Dr. SMALLEY in his annual reports for several years past; and it is satisfactory to note that the views on this matter which he has so insistently urged have been fully confirmed by the report of the Royal Commission on the Care and Control of the Feeble-minded. It may be hoped that this authoritative statement of the facts will lead to some action being taken in the near future to deal with this particular aspect of the problem of the feeble-minded; it should be quite possible to do so on the lines suggested by the Royal Commission without waiting for its more ambitious proposals to take shape in legislation.

A specially interesting part of the report is that referring to the physical condition of adolescent prisoners to whom corrective treatment under what is known as the Borst

system so much attention has latterly been devoted. From observations of the height and weight of 9483 of these juvenile-adults, as they are officially termed, who were treated last year in local prisons it appears that as a class they are markedly inferior in physical development to the young artisans of the towns and still more, of course, to the youths of the rural labouring class. At 16 years of age, for instance, the young criminal is on an average 0·59 inch shorter and 1·1 pounds lighter than the urban artisan and 1·36 inches shorter and 6·1 pounds lighter than the country labourer; while at 20 years of age the inferiority of the criminal as compared with the artisan class amounts to 1·56 inches in height and to 5·8 pounds in weight, and as compared with the rural labouring class to as much as 1·99 inches in stature and to 13·7 pounds in weight. These figures are highly instructive as indicating the unfavourable conditions of the environment in which the young criminal grows to maturity; and from this point of view they furnish a striking proof of the soundness of the Borstal methods in which special importance is assigned to the influences that promote healthy physical development. It is satisfactory to learn that the results so far obtained fully confirm the expectations entertained of the effect of the Borstal training on the health and physique of these young offenders.

The number of prisoners received into convict prisons during the year under fresh sentences of penal servitude was 1179, the number for the previous year being 1035. The daily average population in the male convict prisons was 2934 and in the female prison at Aylesbury 130, this being a slight increase in the former and a slight decrease in the latter as compared with the figures for 1906–07. There were 1630 admissions to hospital during the year—viz., 1543 in the male prisons and 87 in the female—and 1186 male and 239 females were treated as out-patients. No cases of infectious disease occurred last year in the convict population. There were 22 deaths, one being due to suicide and the remainder to natural causes, amongst which pulmonary tuberculosis accounted for five and pneumonia for six. A commendable alteration has been made this year in the form of the blue-book, which is now issued in two parts, one (price 8*d*.) containing the reports and statistical tables referring to the whole prison population, while the second bulkier and more expensive volume (price 1*s*.) gives the usual statutory returns from the several prisons, which have very little interest for the general reader.

The Old Age Pensions Act.

THE provision of pensions for the working poor in their old age is an accomplished fact and the preliminary steps are already being taken which will result in the payment of pensions from Jan. 1st, 1909, to those declared to be entitled to enjoy them. From political, economic, and social points of view the new scheme has been, and will be, criticised and discussed for some time, but attention for the present is concentrated mainly upon the practical working of the Act and the rules framed under it. In the initial stages of its effective life it will undoubtedly afford considerable scope for the energy, care, and discrimination of the pension officer and of those public-spirited men and women who in this country are ever ready to enter public life in order to sacrifice their leisure on behalf of their fellow men and to carry on the duties of local government on behalf of the community. In the case of old-age pensions many of those who will assist loyally in carrying the Act into effect will be politically the opponents of those who passed it and they will have to run the risk of incurring ill-will and popular censure in the performance of the invidious duty of reducing pensions in accordance with the law or in excluding from them claimants not qualified to enjoy them. In London especially the next two months will be laborious ones for the members of the London County Council who have been selected by their fellows to occupy seats on the local pension committee and for those who, with them, will compose that body, as well as for the subcommittees who will devote themselves to the consideration of claims in the large grouped areas, comprising often two or three metropolitan boroughs which, as the Act stands, have been found necessary. These committees will have to deal with an amount of business not quite in proportion with that to be disposed of by similar bodies in urban districts and provincial boroughs, and for them the difficulty of inquiry into antecedents and means in individual cases will be rendered greater by all the circumstances of humble life in the metropolis.

The general methods by which the Act will be put into operation and the outline of the facts to be established in order to obtain a pension of 5*s*. a week; the financial considerations which will reduce it to 4*s*., 3*s*., 2*s*., or 1*s*.; and those, financial and otherwise, which will deprive the apparently qualified person of the right to any pension have been discussed at length in the newspapers, largely with a view of affording guidance and instruction to claimants, and it is evident that difficulty and disappointment will most often arise out of the ascertaining of the means upon which the claimant has hitherto subsisted and out of the results which will follow. The claimant, in other words, will have lived up to the age allotted to men by the Psalmist without receiving parish relief during the last 12 months; he must have lived on something, and if he is found to have already more than £21 a year to support him, in cash or in kind, his pension will be diminished thereby proportionally until it reaches the vanishing point. To take round figures, 13*s*. have been fixed on as the maximum of income plus pension, so that if a claimant appears to have from other sources as much as 9*s*. weekly his weekly pension will be 4*s*., and if his means apart from pension exceed 12*s*. no pension will be obtainable. The exact annual sum which takes away the right to pension is £31 10*s*., but presumably the fractional margin thus allowed will not often come under consideration. The calculation of the means of any person is dealt with in Section 4, Subsection 1, of the Act, which directs that account shall be taken of (*a*) the income which that person may reasonably expect to receive during the succeeding year in cash, excluding any sums receivable on account of an old age pension under the Act, that income, in the absence of other means for ascertaining

the income, being taken to be the income actually received during the preceding year; (*b*) the yearly advantage accruing to that person from the use or enjoyment of any property belonging to him which is personally used or enjoyed by him; (*c*) the yearly income which might be expected to be derived from any property belonging to that person which though capable of investment or profitable use is not so invested or profitably used by him; and (*d*) the yearly value of any benefit or privilege enjoyed by that person. We are at once reminded by the comprehensively vague words of paragraphs (*a*) and (*d*) that a certain number of those applying for pensions will have heretofore "reasonably expected" to receive in the future as in the past assistance from children, or charitable aid from their wealthier neighbours, taking the form of money payments or of "benefits or privileges," which in many cases will be of such a nature that they can be withdrawn at will. Probably they will not be so withdrawn where to do so will leave the pensioner poorer than he was before, but in some cases at any rate the pension is likely to be of less benefit to its actual recipient than to those who before were content to help him to live. In any case proof of what may be "reasonably expected" is likely to present difficulties not only in such cases as are indicated above but also where account has to be taken of the petty and precarious trades and industries of the aged poor, of profits from the subletting of premises of trifling value for tenancies of weeks or days, and of similar matters not always recorded with accuracy.

We have called attention to the above point with regard to the possible effect of the continuance of charitable doles upon pensions because members of the medical profession are widely interested in the dispensing of their private charity and in the influencing of the distribution of charity by others, and we express the hope that so far as is consistent with justice to the giver and to other possible recipients of it, the "income" given in charity may be continued wherever the pension will be enjoyed in addition to it. We do not consider, however, that the private giver need relieve the State of its obligations. The Act is a very important one and no doubt it is in the nature of an experiment which will lead to further developments in the future, one of the most interesting questions with regard to its practical working having been suggested recently at more than one inquest by coroners in London. Poor and aged persons have dragged on their existence until they have died from starvation rather than avail themselves of the Poor-law, and it is feared that this kind of suffering may be increased owing to the temptation to struggle on upon a pension of 5*s*. per week. On the other hand, the additional weekly income will, in many cases, just turn the balance between a sufficiency and penury and will have the undoubted effect of increasing the physical well-being and mental comfort of a large number of old people. Incidentally a like benefit will often accrue to their children who, with families of their own, now find it a hard task to contribute anything to the support of aged parents. The extra nourishment and clothing that the active generation of work-people will be able to afford for itself when lightened appreciably of its pious burden can scarcely fail to show some beneficial reaction upon the national health. In London and other large cities where rents are high the maximum pension by itself will doubtless be found inadequate to maintain its recipient in anything like decency, and in London and other large cities aged persons isolated and forgotten by their relatives and friends are of more frequent occurrence than in country districts or small towns. On the whole, however, the new Act should bring a certain measure of relief and comfort to a large number not undeserving of sympathy and aid, and we hope that the coming year will provide records of its successful operation.

Annotations.

"Ne quid nimis."

OVERLYING OF INFANTS.

THE report stage of the Children Bill occupied the House of Commons on the first day of the autumn session and perhaps the most important outcome of the debate was the adoption of Mr. Herbert Samuel's new clause. This provides that if an infant meet its death by overlying, the offending person being over 16 years of age, and having been at the time of going to bed under the influence of drink, such a person shall be "deemed to have neglected the child in a manner likely to cause injury to its health," and so to become liable to punishment under the Act. Mr. Samuel, in moving the clause, said that about 1600 infants lost their lives yearly from overlying in England and Wales, and that there could be no doubt that drunkenness had much to do with the evil, for official statistics proved that cases occurred twice as often upon Saturday nights as on other nights of the week and twice as often in weeks containing Bank Holidays as in other weeks. The existing law was inadequate because the only charge under which the offender could be punished was that of manslaughter, and coroners' juries were naturally reluctant to bring in a verdict which would expose a mother to so serious an accusation. The clause was passed by a majority of 125. It appears probable that the Bill will pass into law with little further alteration in the House of Lords, and there can be no two opinions as to the urgent necessity of a measure dealing with overlying. At the same time it seems to us that the limitation of its action to drunken persons will result in a very small number of convictions being obtained, for the difficulty of proving drunkenness against a mother must of necessity be very great; poor people are much more likely to shield each other than to turn informers when summoned before the coroner to give evidence in such a matter. The recognition of the danger is by no means new, for, in this country at least, it goes back to the Middle Ages. In those remote times the Church and not the State acted as the guardian of infant life. It is hardly needful to add that the Church then held a lever of authority which could effect a desired purpose quite as effectually as can any State legislation of the present day. Withington states in his "History of Medicine" that in 1255 Walter de Kirkham, Bishop of Durham, ordered all the clergy of his diocese solemnly to exhort mothers from the pulpit not to take their babies to bed with them, for through this habit many were suffocated. It seems that pastoral exhortations were not sufficient to cope with the evil and in 1291 a Synod of Sodor forbade the same practice under pain of the Church's most terrible ban:—

> Inhibemus sub poena excommunicationis, ne aliquae mulieres vel uxores parvulos suos in lectulis suis secum collocari permittant, antequam aetatis suae tertium annum impleverint. Quod statutum ad minus semel in anno singulis sacerdotibus volumus promulgari. (Constit. Synod. Sodor., Cap. xiv., in Wilkin's Conc., ii., 177.)

The statute was doubtless effective in checking a waste of

infant life which must have reached grave proportions to call for so drastic a remedy as excommunication. In any case it throws a very remarkable sidelight upon the fostering care which the Church of the Middle Ages exercised over the physical well-being of her children.

ACIDS AND FAT.

FATTY foods are not generally accounted as of a palatable character but it is a matter of some physiological interest that they often form an acceptable combination with an acid substance. Many people, for example, would refuse to eat a slice of very fat bacon unless it were accompanied by a grilled or scalded tomato. The acidity or acid flavour of the fruit seems in some way or other not merely to mask the richness of the fatty substance but positively to combine with it in some mysterious way an agreeable flavour. The temptation to many again to eat cream alone is not very great but the same persons completely yield when the same cream is combined with fruit. How rarely, too, is roast pork served without the tart apple sauce. To serve it with sweetened sauce is, of course, a vulgar error. Instances could be multiplied but there are innumerable acid jellies served with certain rich meats, and altogether the demand for combining with a rich fatty food an acid substance would seem to be the logical outcome of a dietetic necessity. In considering the ordinary assimilative processes of the body and the chemical and physiological actions involved therein it would not appear that the association of an acid substance with fats could assist in their digestion. On the contrary, the digestion of fats takes place in an alkaline environment. Neither is there reason for supposing that acids affect the chemical or physical condition of fat in a way that would prepare it favourably for assimilation. It is true that many, if not all, of the natural acid substances occur in the form of acid salts rather than of free acids, and hence their disintegration in the body results in an alkaline residue which is calculated to preserve an alkaline condition of the blood and to supply an alkaline moiety in pancreatic digestion suitable for the emulsifying of the fatty portions of food. Such an explanation of the fact that a fatty food is oftentimes made attractive (while otherwise it is repulsive) by compounding it with an acid substance would thus have a definite physiological basis, but it is more probable that, after all, the question is one entirely of palate. Chemists can tell us of no neutralising power of sugar over acids, and yet the addition of sugar to a tart beverage often makes it drinkable. Conversely, a beverage that is "heavy" or mawkish because of its sweetness may be made less sweet or "dry" by the addition of acid. A familiar illustration of this is the very excellent beverage known as a "lemon squash." If it is too sweet the addition of more lemon juice suffices to reduce the sweet taste; if it is too acid then more sugar is added to suppress the tartness. In the former case the amount of sugar remains the same and in the latter the amount of acid also. The palate in this case appears to resent an excess in the direction of a single flavour but willingly accepts two or more flavours when balanced by combination. The fat in fatty foods may thus be made acceptable much in the same way as may be an excessively sugary fluid, that is, by the addition of an acid. The surfeit of sweetness or fatness is balanced by acidity or *vice versâ*. Possibly a difference between the osmotic pressure of the different substances is a factor, the effect on the nerves of taste being modified in a negative or positive direction according to the substance in contact with them. An equilibrium may thus be established by combination. The subject reminds us of the French custom of reserving the drinking of champagne until the "sweets" are served. The wine is usually sweet but after eating "sweets" it tastes quite "dry." The same wine served with unsweet dishes would be rejected for the simple reason that a sweet-tasting beverage, as it then appears, does not harmonise with the flavour of appetising or more or less rich foods.

THE USE OF GLOVES AND MASKS IN MODERN SURGERY.

IN *Surgery, Gynecology, and Obstetrics* for August Mr. E. Stanmore Bishop condemns the use of gloves and masks by the surgeon on the ground that they materially hamper his movements. He grants the possibility that after much practice men trained from the first to work in rubber gloves may be able to use their fingers as deftly as if they were bare, but this entails much increased risk to the patient, since the dangers of an operation are not all removed when every micro-organism is eliminated. There still remain the even greater dangers of excessive loss of blood from vessels not grasped with sufficient quickness by forceps held in muffled hands; the increased shock due to loss of time by less rapid stitching or delayed toilet; the less handy use of the knife or other instrument; the delay caused by the nipping of a glove; the lack of facility in tying ligatures or sutures; or any one of the multitudinous little impediments which every surgeon notices who operates in gloves. But these drawbacks are increased when a surgeon who has attained a high degree of facility with his bare hands attempts the same work in unaccustomed coverings. Mr. Bishop considers that it is time that someone had the courage to point out the fallacy of the rubber glove and to show how the recovery of the patient can be endangered by attempting to appear academically complete. The use of rubber gloves does not necessarily insure the exclusion of micro-organisms from the operation field. They are made of various degrees of thickness and so tend to deaden or to render less sensitive the sense of touch. The wearing of gloves greatly increases the tendency of the hands to perspire and to cover the inner surface of the gloves with moisture containing micro-organisms and other impurities. The organisms multiply rapidly in this fluid, which may become acutely poisonous in the course of half an hour, and the chance prick of a needle may allow the discharge of the fluid into the wound and so defeat the object of the glove. In the case of nurses and assistants, however, the hands are in less danger of being pricked, and it is advisable that they should wear rubber gloves. And what is true of the use of gloves may be urged, in Mr. Bishop's opinion, with almost equal force against the use of masks. The surgeon's vision should not be impeded during an operation and he himself should be comfortable and not distracted by personal worry or annoyance. Except after prolonged use it is difficult for the surgeon to look down without seeing the white gauze. Then, again, the deflection of the breath upon the face and eyes creates an unpleasantly warm sensation. Small tufts of cotton-wool placed in the nostrils will effectually prevent any escape of micro-organisms from these outlets, and a small respirator formed of two curved and perforated plates of celluloid inclosing a thin layer of cotton-wool filters the breath from all objectionable particles. These precautions do not hamper the surgeon or distract his attention, and yet they are perfectly efficient. Mr. Bishop advances another objection to the use of masks by the surgeon and his assistants and nurses, in that so many patients are terrified by the appearance of masked faces which suggest the antechamber of torture instead of inspiring the patients with confidence and hope by seeing the cheerful and pleasant faces of those to whom they have become accustomed and in whom they have learned to trust. He

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considers masks to be unnecessary and objectionable and their use indefensible except on academic grounds. There is danger that the perfection of one factor in the attainment of sterility may entail the neglect of others of an equal or greater value. There is a good deal to be said for Mr. Bishop's opinion, but the fact that the use of rubber gloves is not free from objection does not disprove the advantages which they do possess. A surgeon should sterilise his hands as carefully when intending to use gloves as if he were about to operate without them; if this care be taken the risk of a burst glove is small. If the glove be thin, very little practice is required to make the surgeon as expert when using gloves as without them; and most surgeons at the present day agree that the advantages of gloves far outweigh any disadvantages which they may possess.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

THE Bradshaw lecture will be delivered at the Royal College of Physicians of London on Nov. 3rd, at 5 P.M., by Dr. W. Pasteur, the subject being Massive Collapse of the Lung; the Fitz-Patrick lectures will be delivered by Dr. Leonard G. Guthrie on Nov. 5th and 10th, their subject being the History of Neurology; the Horace Dobell lecture will be delivered by Mr. Leonard S. Dudgeon on Nov. 12th, the subject being the Latent Persistence and the Re-activation of Pathogenic Bacteria in the Body; and Dr. F. W. Pavy will deliver three lectures on Nov. 17th, 19th, and 24th, at 5 P.M., the subject being the Pathology and Treatment of Diabetes Mellitus, viewed by the Light of Present-Day Knowledge.

LIGATURE OF THE EXTERNAL CAROTID ARTERY IN EPISTAXIS.

As a rule epistaxis can be successfully treated by plugging the nose. In the *Intercolonial Medical Journal of Australasia* Mr. James W. Barrett and Dr. W. F. Orr have reported two cases in which ligature of the external carotid artery became necessary. In the first case the patient was a man, aged 26 years. In January last he was operated on for nasal polypi. On the fourth day after the operation, while he was walking, epistaxis suddenly began. After it continued for one and a half hours the nose was plugged and the hæmorrhage ceased. The plug was removed on the next morning but the bleeding recurred in the evening. After it had lasted half an hour the patient plugged his nose. He was put to bed, where he remained for ten days, during which he bled about every second day, sometimes freely. Plugs soaked in adrenalin were tried and also adrenalin spray. He became very blanched. The external carotid artery was tied on Feb. 7th. Recovery was complicated by an empyema of the left antrum which was evacuated through the alveolus. On April 1st a large polypus was removed; hæmorrhage was rather free but it soon stopped. Free bleeding occurred during the afternoon and posterior and anterior plugs were inserted which were removed on the next morning. In the second case a man, aged 38 years, came under observation in July, 1907. His turbinates had been cauterised two years previously. There were a large spur in the left nostril and hypertrophy of the right inferior turbinate. As a precaution against hæmorrhage he was given iron and chloride of calcium and the spur was removed. A fortnight later the right inferior turbinate was treated by linear cauterisation. Five days later while the nose was being examined hæmorrhage commenced and about 3 ounces of blood were lost in a couple of minutes. The hæmorrhage was seen to come from the inferior edge of the turbinate and was stopped by pressing cotton-wool soaked in adrenalin against the spot. Four days later violent hæmorrhage occurred as he was leaving church. He lost about 6 or 8 ounces of blood and anterior plugging was performed. On the following day the plugs were removed and another attack of hæmorrhage occurred. Under cocaine the seat of former cauterisation was again cauterised and he was put to bed. Four days later the hæmorrhage recurred and was stopped by anterior plugging. For six days the nose was dressed twice daily with iodoform cyanide plugs soaked in vaseline. Then the plugging was stopped and after three days violent hæmorrhage again occurred. An anterior plug was inserted and some 12 hours later violent bleeding occurred while the plug remained *in situ*. In a few minutes 13 ounces of blood were lost and then bleeding ceased spontaneously. It was decided to plug the nose posteriorly, as a preliminary measure to tying the external carotid artery. But before this could be done the bleeding again began and though all preparations had been made 6 ounces of blood were lost before the plugs could be inserted. The external carotid artery was then tied and there was no further trouble. There was no history of hæmophilia, the rate of coagulation of the blood was normal, and there was no albuminuria. Mr. Barrett and Dr. Orr think that in both cases infective ulceration of the blood-vessels occurred and that the only effective treatment was to lower the blood pressure in the infected area permanently by ligature of the external carotid artery.

THE ITALIAN DEATH-RATE.

"ITALY'S health conditions," writes an Italian correspondent, "are of hardly greater interest to herself than to the outer, mainly English-speaking, world—resort as she is becoming more and more of the fugitive from the northern winter and spring. These conditions, according to the latest statistical returns, indicate a steadily progressive improvement—so progressive, indeed, that if her Casserios and Acquapendentes, her Baglivis and Morgagnis, her Vaccas and Puccinottis could revisit the scenes of their lifework, they would hardly recognise them as socially or topographically the same. Recognition once effected, however, their astonishment would give place to self-congratulation that the biological and medical sciences to the advancement of which they so nobly contributed had fructified in such a harvest, so profitable to the reapers, so honourable to the sowers. Profitable in many ways is that harvest, enabling Italy by the increased influx of the outer world to improve upon the health conditions already obtained and (hardly less important) to subsidise and to develop the schools, experimental and clinical, at which the pioneers of that improvement lived and laboured. Thanks to this 'hygienic revolution,' as remarkable as her political one, Italy can now point to such statistics as these: the number of deaths, in relation to that of births, fluctuating between 64 and 65 per cent., gives an excess of births over deaths of from 35 to 36 per cent. The influence of the seasons on the death-rate is very appreciable. In general the mortality is highest from December to March, then it decreases till June; thereafter it rises in the summer months, again to subside in the first two months of autumn. In the matter of sex, in relation to the death-rate, in the last triennium the proportion was 103 males to 100 females. The proportion marks a notable variation from 1885 onwards—that of the males has diminished, due to increased emigration, due also to the signal diminution in infantile mortality which principally tells upon the males. To the same result contributes in some degree the fact that the proportion of male over female births has slightly diminished; in fact, the male births in the quinquennium 1865–69 were 1069 to 1000 female; 1064 in the decennium 1870–79; and 1057 in the 17 years from 1890 to 1906. From the statistical data relative to the classification by sex and civil condition of the deaths above 15

years of age we find that the highest proportion of deaths among celibates was reached in the Provincia di Roma. This fact is easily explained by the composition of the population of the capital, there being in Rome, besides many priests, a considerable number of immigrant operatives, as well as soldiers and unmarried employees. The deaths below five years of age which in the quinquennium 1872–76 constituted 48 per cent. of the total deaths, in the quinquennium 1902–06 reached only 41 per cent.; on the other hand, the deaths above 70 years which in 1872–76 were 12 per cent. of the total, in 1902–06 were only 2·1 per cent. This sensible diminution in infant mortality and this much more sensible increase in longevity speak volumes for the improved hygiene and sanitation referred to above. Other interesting statistics may be gleaned from the official report—notably those relating to the mortality among the professions and occupations. Limiting the examination of the deaths occurring over 25 years of age up to those occurring over 65, we find that while out of 100 deaths in all professions 54 had passed the fiftieth year, the proportion among priests and monks was 71; among owners of property and men of independent means, 66; among husbandmen, 57; and among tailors, 56; on the other hand, among railway and tramcar hands it was only 13; among engine-drivers and stokers it was 17; among hospital helps, 17; among glaziers, 25; among commission agents and accountants, 27; among policemen, 27; among printers, 29; among miners, 30; among butchers, 36; schoolmasters, 40; and barbers, 42. Under other heads the figures are no less significant, all combining to prove that the Italy of the twentieth century is a much healthier country than the Italy of the nineteenth, and that, favoured as she is by climate and soil, she will have but her own remissness to thank if her hygienic conditions and her attractions for the foreigner do not progress in an even higher ratio than in that just indicated by her latest statistical returns."

THE DANGERS OF A LATE "LIGHTING-UP TIME."

"AN hour after sunset," from the point of view of being able to see, is surely an unscientific standard. Sunset is, of course, a standard as regards the setting of the sun, but the hour later is not a standard of lighting value just because it is within a definite time of the setting. The setting of the sun is not itself synonymous with a definite lighting value either at that time or still less at an hour later. Can our police authorities assert that on every day of the year the power of seeing is the same on the road an hour after sunset? Of course they cannot. Yet the official standard of lighting-up time assumes that such is the case and such as a matter of fact is rarely the case. On one evening there may be enough light to guide those on the road two hours after sunset, on another there may not be a sufficient guiding light within a few minutes of the sun's departure. There are occasions when for all practical purposes it is absolutely dark before lighting-up time, and in these days of fast road traffic the liberality of the lighting-up time standard becomes a grave danger to the public. The number of accidents occurring at this critical time is notorious, especially since the advent of the motor car. The pedestrian, owing to bad light, notwithstanding that it is within an hour after sunset, and to the fact that the lamp is not lighted, has not been able to make out quite whether the object approaching him is a man on his legs or on wheels. A collision with the former is not serious; with the latter it is invariably so. Traffic, in a word, is particularly dangerous within this hour of lighting-up time, but it could be made much safer if the time after sunset were curtailed. Uncertain at all times as the light is, it may be expected to fail us less while the sun is up. It must be remembered that with its setting heat as well as light is withdrawn and that means the rapid formation of darkening agencies, especially in the autumn season. We are sure that a greater security to the public safety would be insured if the lighting-up time were fixed much nearer the actual time of sunset—in the winter months, at all events, if not in the summer—than it is at present. The chances would then be fewer of the lighting of lamps on the road being delayed, often with serious consequences, until practical darkness has set in.

DEATH AFTER APPARENT RECOVERY FROM PLAGUE.

Dr. Javier Ponce de Leon, writing in *La Semana Médica* on the serum treatment of plague, mentions two cases which lead him to think that a recrudescence of the disease in perhaps one of its rarer forms, such as the gastro-intestinal or the meningitic, may occasionally be met with some considerable time after the patient has regained his usual health and may entirely escape recognition as being in any way connected with the original attack. Both cases on admission to the Hospital San Roque, Buenos Ayres, were diagnosed as the bubonic form of plague and the diagnosis was confirmed in the bacteriological laboratory. Intravenous injections of at least 100 cubic centimetres of anti-pestis serum were administered daily for four days, and in one of the cases a hypodermic injection of 60 cubic centimetres was given on the fifth day. The hyperpyrexia and other symptoms then rapidly improved and convalescence was soon re-established. In a little more than a month from the time of admission the pulse and temperature suddenly rose and rigidity of the neck with convulsions and other signs of meningitis made their appearance, and this new affection in spite of prompt treatment proved fatal to one patient in 48 hours and to the other in 24 hours. The necropsies revealed gastritis, pulmonary œdema, hepatic congestion, myocarditis, and suppurative meningo-encephalitis. The pus contained numbers of Yersin's coccobacilli and when injected into guinea-pigs killed them, coccobacilli being found in their organs. Dr. Ponce de Leon suggests that some of the plague bacilli may remain for a time in the body in a latent state, becoming virulent when the effect of the serum, which is known not to be of long duration, wears off. He thinks, therefore, that the injection should not be entirely stopped as soon as the patient appears to be convalescent.

ADULTERATED TEA.

UNDER Section 30 of the Sale of Food and Drugs Act of 1875 all tea imported as merchandise into the United Kingdom is subject to careful examination by the officers of the department of His Majesty's Customs, and when any doubt exists as to its fitness for human food samples are taken and submitted to analysis. If upon analysis the samples are found to be mixed with other substances or exhausted tea the importations represented by the samples can only be delivered with the sanction of the Commissioners of Customs and on such terms and conditions as they shall see fit to direct, either for home consumption or for use as ships' stores or for exportation; but if, as the result of analysis, the tea is deemed unfit for human food the same may be forfeited and destroyed or otherwise disposed of at the discretion of the Commissioners. Tea which is deemed unfit for human food is only allowed to be delivered for use in the manufacture of caffeine. In the case of exhausted tea or tea mixed with other substances the importer is usually given the option of exporting it under bond. The analysis of the samples

submitted is undertaken in the Customs branch of the Government laboratory. During the past year (according to the report of the Commissioners just issued), 317,065,320 pounds of imported tea were inspected by Surveyors of Customs, and 3952 samples were drawn and submitted for analysis. The results of the examination of these samples were as follows: 3473, representing 100,751 packages, were delivered on the certificate of the analyst, whilst the remaining 479 samples, representing 2070 packages (146,923 pounds), were submitted to the Board for its directions and were ultimately allowed to be delivered for exportation (but not for ships' stores) or for use in the manufacture of caffeine, and so on; none were allowed to be delivered for home consumption and 27 of the samples, representing 33 packages, were condemned as unfit for food.

THROMBOSIS OF THE SUBCLAVIAN VEIN IN CHLOROSIS.

IN his exhaustive article on the "Cerebral and Ocular Complications of Anæmia and the Probable Relationship of these to Thrombosis"[1] Dr. C. O. Hawthorne states that the veins of the upper limbs or neck are rarely involved. In the *Boston Medical and Surgical Journal* of Sept. 17th Dr. E. A. Rogers has reported the following case of thrombosis of the subclavian vein in chlorosis. A girl, aged 18 years was admitted into hospital on Nov. 13th, 1907. She had been constipated for two years and suffered much from headache and a sense of fatigue. For a number of years she had drunk ten cups of tea and four cups of coffee daily. Menstruation had always been regular. On Nov. 8th she noticed that her left arm was swollen from the shoulder to the finger tips. The swelling increased but she suffered no pain. On admission she was slightly chlorotic. She was put to bed with the forearm supported in a sling and elevated on a pillow. She was not disturbed for the usual bath and a complete physical examination was not made for fear that the thrombus might be dislodged. The left arm from the finger-tips to the shoulder was much swollen and the veins were well marked over the left pectoral region and shoulder. The temperature was 99·6° F. and the pulse was regular and good in both wrists. Over the præcordium a loud blowing systolic murmur and an accentuated second pulmonic sound were heard. The left arm measured 10¼ inches at the fore-arm, 11¾ inches at the mid-arm, and 12 inches below the shoulder. The corresponding measurements of the right arm were 9½, 10½, and 10¾ inches respectively. The hæmoglobin amounted to 60 per cent. Two 5-grain Blaud's pills thrice daily, 15 minims of fluid extract of cascara morning and night, and semi-solid diet were given. On Nov. 16th the red corpuscles numbered 4,160,000 and a stained blood smear showed marked achromia and poikilocytosis. On the 17th the swelling of the arm was less and on the 21st the arm was of normal size. On Nov. 23rd the hæmoglobin was 70 per cent., the red corpuscles numbered 4,200,000, and achromia and poikilocytosis were less marked. On Dec. 7th there was still marked pallor of the skin and mucous membranes. The skin of the left arm was harsh and dry and the fingers of the left hand were redder than those of the right. Over the left pectoral region a delicate network of veins was visible. The hæmoglobin was 75 per cent. and the red corpuscles numbered 4,300,000, and there was no poikilocytosis or achromia. The patient was discharged. Four months later she returned, having followed directions as to diet and so forth. She was in good health. The hæmoglobin was 95 per cent. and the red corpuscles numbered 4,375,000, but the murmur persisted. All signs of venous obstruction had disappeared. In addition to the unusual site of the thrombosis its occurrence in a mild case of chlorosis without pain or fever is noteworthy.

[1] THE LANCET, Sept 19th, 1908, p. 857.

METROPOLITAN OPHTHALMIA SCHOOLS.

THE ophthalmia schools provided and managed by the Metropolitan Asylums Board, pursuant to the recommendations of the departmental committee on metropolitan Poor-law schools in 1896, are doing most useful work which scarcely receives the attention which it deserves. The White Oak School at Swanley and the High Wood School at Brentwood together contained 506 patients on Jan. 1st last, showing an increase of six upon the number at the beginning of 1907. During last year 502 children were admitted to these two schools, of whom 82 were suffering from trachoma. With reference to the slight increase in the number of cases under treatment in 1907 the ophthalmic surgeon observes that an increased prevalence of the disease should not be definitely inferred therefrom, as the increase may be due to more general appreciation of treatment in these schools; he at the same time calls attention to the continued decrease in the number and proportion of cases of trachoma, implying the milder character of the cases recently admitted. It appears that there has been a marked decrease in the duration of cases treated since these schools were established in 1903. The average duration of treatment of the first 100 cases admitted in that year was rather more than 18 months, whereas the average duration of the last 100 cases, discharged in 1906, did not exceed 7·4 months. As regards cases of trachoma, the mean duration of 100 cases treated at the temporary Hanwell Ophthalmia School was only slightly less than 32 months; whereas the average duration of 100 cases of the same form of disease discharged from the two present schools in 1906 did not exceed 17·7 months. These figures imply either greater success of treatment or a considerably milder form of the disease. The children's committee of the Metropolitan Asylums Board is faced with difficulty in dealing with patients affected with ophthalmia in these schools who attain the age of 16 years before a cure is effected, as under present regulations a child is held to become an adult on attaining this age and cannot be retained longer in the schools. The report of the Metropolitan Asylums Board points out that while it is obviously impracticable to retain adult chronic cases of ophthalmia in these schools for an indefinite period it is equally undesirable to discharge a case which is likely to be cured in a comparatively short time, because the patient happens to have attained the age of 16 years. This difficulty has been submitted to the Local Government Board for advice and decision. The report calls special attention to the continued undue proportion of cases of ophthalmia admitted to these schools from Southwark and Wandsworth, which requires the careful consideration of the sanitary authorities of those parishes.

ALEXIS ST. MARTIN.

How far the knowledge handed down from ancient times of physiological processes is the result of experiments upon the living, whether quadrupeds or human, remains a mystery perhaps not possible of solution by the medical historian. There can be no doubt, however, that much ancient knowledge, especially that of poisons, was derived from the observation of slaves or captives of war, wounded soldiers, criminals, and gladiators, whose agonies, whether accidental or consciously promoted, were observed by generations of physicians, of whom Galen was perhaps only a late survival. In his recent work, "An Alabama Student and other Biographical Essays," Professor W. Osler reminds us that our knowledge of the gastric juice and its action in digestion is largely derived from the observations of William

Beaumont, an American physiologist, who prior to 1832 was actually in a position to look inside the body of a living patient. Alexis St. Martin, the person thus pried into, had been almost killed by the contents of a shot-gun in 1812, and had for years suffered from a gaping wound under the left nipple. In his work, "Experiments and Observations on the Gastric Juice and the Physiology of Digestion," Dr. Beaumont tells us how "frequent dressings with soft compresses and bandages were necessarily applied, to relieve his suffering and retain his food and drinks, until the winter of 1823–4. At this time, a small fold or doubling of the coats of the stomach appeared, forming at the superior margin of the orifice, slightly protruding, and increasing till it filled the aperture. ..... This valvular formation adapted itself to the accidental orifice, so as completely to prevent the efflux of the gastric contents when the stomach was full, but was easily depressed with the finger." In 1824 the sides of this orifice were firmly cicatrised, and St. Martin, with a kind of window in his body, became a walking demonstration of the digestive processes. Left very poor by his long illness and sufferings he hired himself out to Dr. Beaumont who made some 238 observations upon him, by which, as Professor Osler points out, were "anticipated some of the most recent studies in the physiology of digestion." Dr. Beaumont's main results are enumerated at length by Professor Osler who insists on their great importance. The man St. Martin became at one time a soldier but was mainly employed in making tours and exhibiting himself before medical audiences. He lived to the age of 83 years. As an old man he "complained bitterly of some doctors who had awfully misused him and had kind words for others." It was not possible to perform a necropsy when he died, as his friends purposely allowed the corpse to decompose, an ungracious course, since there can be no doubt that St. Martin owed his long life to the industry and acumen of medical men, especially in the first instance of William Beaumont, the "pioneer physiologist" of America.

TUBE DANGERS.

A CORRESPONDENT recently writing in the *Times* complained of the disgraceful overcrowding of the Central London Railway trains upon Oct. 3rd, giving a graphic account of his experiences underground on that day. We are in a position to state that last Saturday a state of affairs was allowed to occur on the same line which reflects no less discredit on its management. It was the occasion of an athletic contest at the Stadium at Shepherd's Bush which was attracting a large number of visitors to the Exhibition stations. The consequence was that west-bound trains arriving at Oxford-circus at about 2.30 P.M. were already crammed to nearly their full capacity with straphangers, a fact of which the authorities at that station should certainly have been cognisant. Instead of refusing to admit any more passengers to the platform until the traffic was relieved they continued to issue tickets, and before very long the platform for westward trains was thronged with would-be travellers. When the trains came in a rush was made for them and as of course their doors had to be opened to give egress to any passengers desiring to alight, a further living burden was added to the already overloaded carriages. In one instance we saw a train move off with so many people standing on the platform between two carriages that the guard was unable to close the door—at least, until the train had disappeared into the tunnel. Some wiser persons, after watching several trains depart in this way, returned to the street and sought other methods of conveyance. It is no excuse to urge that the traffic was exceptionally heavy on that day. The Board of Trade would not excuse a steamboat company for grossly overloading a vessel for a popular excursion, and the possibilities of accident in the tube railways are sufficient to make such an abuse of the traffic as occurred on Saturday no less reprehensible. The consequences of a fire occurring in a tunnel under any conditions are almost too appalling to think about, but something much less serious than a fire might lead to a disaster in trains packed beyond their proper capacity. A failure of current, such as occurred a fortnight ago, with a sudden stoppage of the train, and a woman's frightened scream, might lead to a panic which would have the most disastrous results. It may be said that the guards in the trains and on the platforms did what they could to regulate the passengers but were powerless to prevent them from boarding the trains. It is not our business to suggest a mechanism by which such disorders may be averted, but it is the undoubted business of a journal that is concerned with the public safety to call attention to their occurrence and the urgent necessity of preventing a repetition of them under similar exceptional conditions.

A PERSISTENT TYPHOID CARRIER.

Mr. E. Huggenberger, assistant at the Bacteriological Institute of Zürich (which is under the care of Professor Silberschmid), has issued a report on the etiology of a series of 13 cases of enteric fever occurring in one family. The investigations conducted at the Bacteriological Institute proved that the entire series of cases stretching over a period of 30 years had been due to the fact that the evacuations of the patient first attacked by this disease in 1877 still contained virulent typhoid bacteria. The special investigations made in Germany during the last five years, upon which Dr. P. Frosch reported at the International Congress of Hygiene held in Berlin in 1907,[1] proved in hundreds of very conclusive cases that the evacuations of patients convalescent from enteric fever contained virulent typhoid bacteria for many months and even many years. The recorded case is of such practical value as to deserve a full report. During the spring of this year a medical district officer in X, a place in central Switzerland, applied to the public health authorities of the town of Zürich for help in dealing with a baffling series of cases of enteric fever which had occurred in one household and during 31 years had affected almost every member of the household. The cases had occurred in the following sequence: (1) mother in 1877, (2) father in 1886, (3) son in 1892, (4) daughter-in-law in 1902, and (5 to 13) nine servants from 1899 to 1908. Professor Erismann, head of the sanitary department of the town of Zürich, suggested that one of the members of the family might be the source of infection, as the medical officer reported that these cases never coincided with other cases of enteric fever in the place. The house was looked after with scrupulous care and after each case the most careful disinfection had been carried out. No fault could be found with the water-closets. The servants' room had been changed several times; the whole family had moved first into a new house and then into another flat of the same house, but the enteric fever always followed it. The bacteriological examination of the evacuations of all the present members of the household demonstrated the existence of virulent typhoid bacilli in the motions of the mother of the family who had been laid up with enteric fever in 1877 and had since then shown no symptoms. The examinations were most carefully controlled by cultivation on agar prepared with sulphite of calcium, sugar of milk, and fuchsin (Endo's method). The agglutination test also gave a positive result. As medicinal methods of disinfection of the intestines are either dangerous or untrustworthy, the lady in question was recommended to

[1] See Annalen, vol. ii., p. 1119.

have her motions carefully disinfected, to disinfect bedclothes and underclothes, to wash her hands with an antiseptic solution, and to keep away from the kitchen premises.

IT is with deep regret that we have to announce the death of Dr. James Grey Glover which occurred quite suddenly on Oct. 14th. We hope to publish an extended notice of our old friend and colleague in a future issue.

THE third scientific report of the investigations of the Imperial Cancer Research Fund has been issued in the name of the managers by Dr. E. F. Bashford, general superintendent of the laboratory. We shall deal at length with the report in a future issue.

AT a special session of the justices of the city of Liverpool, held on Oct. 6th, Mr. J. E. O'Sullivan, J.P., L.R.C.P. & S. Edin., was appointed one of the judicial authority under the Lunacy Act, 1890.

AN ACCOUNT OF THE POST OFFICE SANATORIUM MOVEMENT.[1]

BY CHAS. H. GARLAND,

SECRETARY AND FOUNDER OF THE POST OFFICE SANATORIUM SOCIETY CHAIRMAN OF THE NATIONAL ASSOCIATION FOR THE ESTABLISHMENT AND MAINTENANCE OF SANATORIA FOR WORKERS; MEMBER OF THE COUNCIL OF THE NATIONAL ASSOCIATION FOR THE PREVENTION OF CONSUMPTION; MEMBER OF THE BRITISH EXECUTIVE OF THE INTERNATIONAL CONGRESS ON TUBERCULOSIS (WASHINGTON, 1908), ETC.

THE Post Office Branch of the National Association for the Establishment and Maintenance of Sanatoria for Workers Suffering from Tuberculosis was registered on Jan. 16th, 1907, and the first of its patients was admitted to Benenden Sanatorium on March 4th, 1907. It is a voluntary association and came into existence as the result of a conference held on Sept. 29th, 1906. But prior to this, of course, much propaganda work was done among the employees who now form its membership. The method of this organisation cannot fail to be of interest, and I will therefore preface this brief account of its working with some account of its formation.

For years the belief existed among post office employees that consumption demanded an excessive number of victims in the postal service, and this belief is common among post office workers in other European countries. The support of this belief is the undoubted fact that tuberculosis does account in the British post office service for nearly half of the total mortality. This result is due largely to exclusion of other diseases by medical selection and inspection. The belief supplied some of the groundwork on which the Post Office Sanatorium Society was eventually erected.[2] In January, 1902, after many less widely circulated articles and papers had been written, 25,000 copies of a pamphlet[3] were printed and distributed by the agency of the post office labour societies. By these means a lively interest in the subject was created and the ground prepared for the launching of the scheme for the provision of sanatorium treatment. On March 6th, 1903, a resolution was moved by myself at the annual conference of the Postal Telegraph Clerks' Association of Great Britain held at Leeds, as a result of which a subcommittee was appointed to consider the practicability of providing sanatorium treatment for post office servants, and power was given to them to coöperate with other societies in futherance of this object. In May of the same year, under the auspices of the Hospital Saturday Fund, an effort was commenced to form a combination of trade unions, friendly societies, and other corporations for the purpose of erecting self-maintaining sanatoriums for workers. A consultation between the secretaries of the two movements resulted in a combination which has been mutually fruitful, and has been cemented by the fact that the writer has acted as chairman of the combined movements and secretary of the Post Office Society during the initial stages. The post office subcommittee called a conference at the General Post Office, London, on August 27th, 1904, at which a provisional committee was elected representing all arms of the post office service. As a result of the work of this committee a circular was drawn up and nearly 100,000 copies were issued to postmasters and heads of departments throughout the United Kingdom, with a request that it should be distributed to the members of their staffs. The chief points of the scheme proposed as set out in the circular may thus be summarised.

By the aid of the National Association (then called the National Committee) for the Establishment and Maintenance of Sanatoria for Workers Suffering from Tuberculosis it was possible for workers' organisations to obtain beds in sanatoriums for an inclusive charge of £65 per year. It had been estimated that the number of "first year cases" among post-office employees which would be likely to prove suitable for treatment would not exceed 2 per 1000 living among the members of the projected society. A subscription of 2*s.* per year, or less than ½*d.* per week, would raise £100 per year per 1000 members, and as each bed would provide on the average for three patients per year the amount raised would provide for all cases likely to arise, pay management expenses, and possibly meet other charges. The response of the post-office employees of all grades, of whom there are nearly 200,000, was enthusiastic, and an estimate of prospective membership given to the inaugural conference of Sept. 29th, 1906, set the number at 32,000. This has been exceeded, and is daily increasing, and on May 15th, 1908, it stood at 34,500. At the inaugural conference a set of rules was adopted and a committee and officers were appointed. The rules of the society were registered at the Registry of Friendly Societies on Jan. 16th, 1907. The first patient was sent to Benenden Sanatorium on March 4th, 1907, and up to May 15th, 1908, 108 cases had been dealt with. Table I. shows the number of cases, the post office rank, the office in which he or she is employed, and the dates of admission and discharge, and Table II. shows the results obtained.

TABLE II.—*Summary of Results.*

Disease arrested; returns to work	19
Improved	7
Unimproved	6
Died	1
Still under treatment	36
Cases found unsuitable	17
Left at own wish...	2
Applicant died before seeing referee	3
Applications withdrawn by patient	11
Found to be non-member...	1
Not complete	5
Total...	108

Completed cases.—From the accompanying tables it will be seen that the treatment of 33 cases has been completed at the sanatorium and 36 are still under treatment. Of the 33 cases completed 19 left with the disease arrested and returned to work, seven left improved, six unimproved, and one died at the sanatorium. Of these one case of arrest has relapsed and one unimproved case has been readmitted to the sanatorium. The average length of treatment has been 16 weeks and a day. The longest stay was 41 weeks and the shortest four weeks.

Membership.—The total paid-up membership is shown by the balance sheets to have been in January, 1907, 31,915; July, 1907, 32,641; and May 15th, 1908 (partly estimated), 34,500. At the time of writing (July 31st) the membership stands at 35,350.[4] The number of branches is 616.

Collection of funds.—The method of collection is exceedingly simple and, so far as the society is concerned, exceedingly cheap. The Postmaster-General agreed to deduct the sum of 1*s.* half-yearly from the salary or wages of any of his officers who gave consent to such deduction.

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[1] A paper entitled "An Account of the Organisation and Working of the Post Office Branch of the National Association for the Establishment and Maintenance of Sanatoria for Workers Suffering from Tuberculosis, known as the Post Office Sanatorium Society," contributed to the International Congress on Tuberculosis at Washington.

[2] Vide article by Dr. T. D. Lister and C. H. Garland, British Journal of Tuberculosis, July, 1908.

[3] Consumption in the Post Office with Some Hints on Prevention, by C. H. Garland (the first part reprinted from THE LANCET of Sept. 14th, 1901).

[4] The September figures are 35,970.

TABLE I.—*Showing Cases Dealt With up to May 15th, 1908.*

No.	Rank.	Office.	Admitted.	Discharged.	Duration.
1	Town postman.	Maidenhead.	March 6th, 1907.	—	—
2	S. C. & T.	Peterborough.	March 13th, 1907.	July 10th, 1907.	17 weeks.
3	Rural postman.	Newcastle-on-Tyne.	March 13th, 1907.	Died April 3rd, 1907.	—
4	Sorter.	W. C. D. O., London.	April 22nd, 1907.	July 27th, 1907.	13 weeks, 5 days.
5	Sorter.	S. E. Parcel Office, London.	April 24th, 1907.	July 20th, 1907.	12 weeks, 3 days.
6	Postman.	W. C. D. O., London.	—	—	—
7	S. C. & T.	Birmingham.	—	—	—
8	3rd Cl. Clk.	Engineer-in-Chief's, London.	June 7th, 1907.	Left June 14th (own wish).	1 week.
9	S. C. & T.	Charleville, Ireland.	May 13th, 1907.	August 7th, 1907.	12 weeks, 2 days.
10	Telegraphist.	C. T. O., London.	April 26th, 1907.	Feb. 17th, 1908.	41 weeks.
11	Clerk.	Norwood.	—	—	—
12	S. C. & T.	Sudbury, Suffolk.	May 22nd, 1907.	Oct. 7th, 1907.	19 weeks, 5 days.
13	Telegraphist.	C. T. O., London.	March 30th, 1907.	July 20th, 1907.	11 weeks, 5 days.
14	Sorter.	Inland Section, G.P.O., Lond.	May 29th, 1907.	—	—
15	Female sorter.	Money Order Dept., London.	May 7th, 1907.	Sept. 21st, 1907.	19 weeks, 4 days.
16	Postman.	W. C. D. O., London.	May 31st, 1907.	Feb. 17th, 1908.	37 weeks, 3 days.
17	Junior clerk.	Engineer-in-Chief's, Newc'stl.	—	—	—
18	S. C. & T.	Liverpool.	June 24th, 1907.	July 22nd, 1907.	4 weeks
19	Postman.	Uxbridge.	June 3rd, 1907.	Sept. 11th, 1907.	14 weeks, 2 days.
20	Telegraphist.	C. T. O., London.	—	—	—
21	Telegraphist.	C. T. O., London.	May 27th, 1907.	August 7th, 1907.	10 weeks, 2 days.
22	Postman.	Kensington.	May 27th, 1907.	—	—
23	Postman.	W. C. D. O., London.	June 5th, 1907.	July 27th, 1907.	7 weeks, 3 days.
24	S. C. & T.	Scarborough.	June 15th, 1907.	August 5th, 1907.	8 weeks.
25	Postman.	W. C. D. O., London.	—	—	—
26	S. C. & T.	Norwich.	—	—	—
27	Telegraphist.	C. T. O., London.	—	—	—
28	Telegraphist.	C. T. O., London.	—	—	—
29	S. C. & T.	Manchester.	—	—	—
30	C. C. & T.	E. D. O., London.	July 8th, 1907.	Sept. 13th, 1907.	9 weeks, 4 days.
31	Postman.	Peckham.	July 22nd, 1907.	Oct. 22nd, 1907.	10 weeks, 3 days.
32	Telegraphist.	C. T. O., London.	July 8th, 1907.	—	—
33	Telegraphist.	C. T. O., London.	July 24th, 1907.	Oct. 17th, 1907 (own wish).	12 weeks, 1 day.
34	S. C. & T.	Watford, Herts.	July 10th, 1907.	Sept. 7th, 1907.	8 weeks, 3 days.
35	Postman.	S. E. D. O., London.	Sept. 2nd, 1907.	—	—
36	Rural postman.	Potton, Beds.	July 24th, 1907.	Nov. 15th, 1907.	16 weeks, 2 days.
37	Sorter.	Paddington D. O., London.	August 2nd, 1907.	March 13th, 1908.	32 weeks.
38	Postmaster.	N. Walsham.	—	—	—
39	Lift attendant.	E. C. D. O., London.	—	—	—
40	Sorter.	Paddington D. O., London.	Sept. 4th, 1907.	—	—
41	Postman.	Purfleet.	Sept. 13th, 1907.	Nov. 6th, 1907.	7 weeks, 5 days.
42	S. C. & T.	Woodford Green.	Sept. 12th, 1907.	Jan. 10th, 1908.	17 weeks.
43	Postman.	Bristol.	—	—	—
44	Postman.	Windsor.	Sept. 12th, 1907.	March 28th, 1908.	28 weeks, 2 days.
45	Postman.	Plaistow.	Oct. 25th, 1907.	—	—
46	Postman.	Richmond.	Oct. 23rd, 1907.	March 28th, 1908.	22 weeks, 1 day.
47	S. C. & T.	Birmingham.	—	—	—
48	Postman.	E. C. D. O., London.	Oct. 28th, 1907.	May 8th, 1908.	27 weeks, 4 days.
49	Postman.	Islington.	—	—	—
50	S. C. & T.	Belvedere.	Nov. 13th, 1907.	Jan. 20th, 1908.	9 weeks, 4 days.
51	Postman.	S. W. D. O., London.	—	—	—
52	Postman.	Prescot.	Nov. 20th, 1907.	April 10th, 1908.	20 weeks.
53	Asst. Supt. Tel.	C. T. O., London.	Nov. 13th, 1907.	April 13th, 1908.	21 weeks, 5 days.
54	Asst. Insp. Mes.	Swiss Cottage.	Nov. 15th, 1907.	Feb. 3rd, 1908.	11 weeks, 3 days.
55	Sorter tracer.	Acct. Genl's. Dept., London.	Nov. 25th, 1907.	—	—
56	S. C. & T.	Guildford.	—	—	—
57	Porter.	S. W. D. O., London.	Nov. 28th, 1907.	April 27th, 1908.	21 weeks, 3 days.
58	S. C. & T.	Grimsby.	—	—	—
59	Sorter.	Inland Section, London.	Dec. 22nd, 1907.	—	—
60	S. C. & T.	Carmarthen.	Dec. 18th, 1907.	—	—
61	Fem. Tel.	Dundee.	—	—	—
62	Sorter.	Paddington D. O., London.	Dec. 13th, 1907.	Feb. 7th, 1908.	8 weeks.
63	Fem. S. C. & T.	Liverpool.	Feb. 10th, 1908.	—	—
64	Telegraphist.	C. T. O., London.	Dec. 16th, 1907.	Feb. 17th, 1908.	9 weeks.
65	S. C. & T.	Edinburgh.	—	—	—
66	S. C. & T.	Hexham.	Dec. 23rd, 1907.	—	—
67	Postman.	Christchurch.	Jan. 14th, 1908.	April 10th, 1908.	12 weeks, 3 days.
68	Postman.	St. Albans.	Jan. 6th, 1908.	—	—
69	Fem. S. C. & T.	Blackpool.	Feb. 11th, 1908.	—	—
70	Porter.	E. C. D. O., London.	Feb. 3rd, 1908.	—	—
71	S. C. & T.	Leeds.	Feb. 14th, 1908.	May 4th, 1908.	11 weeks, 3 days.
72	Postman.	Notting Hill, London.	Jan. 23rd, 1908.	—	—
73	Postman.	Wakefield.	Feb. 11th, 1908.	—	—
74	Postman.	Horsham.	—	—	—
75	Postman.	Kilmallock (Ireld.).	—	—	—
76	Sorter.	Paddington D. O., London.	Feb. 28th, 1908.	—	—
77	Sorter.	Mount Pleasant, London.	Feb. 24th, 1908	—	—
78	Postman.	Notting Hill, London.	Feb. 24th, 1908.	—	—
79	Sorter.	Paddington D. O., London.	Feb. 24th, 1908.	—	—
80	S. C. & T.	Oldham.	Feb. 26th, 1908.	—	—
81	Tel. (relapse of No. 13).	C. T. O., London.	March 4th, 1908.	—	—
82	Postman.	Leeds.	March 6th, 1908.	—	—
83	Telegraphist.	C. T. O., London.	March 4th, 1908.	—	—
84	Postman.	Hyde.	March 16th, 1908.	—	—
85	Postman.	E. C. D. O., London.	March 16th, 1908.	—	—
86	Postman.	Cradley Heath.	March 20th, 1908.	—	—
87	Overseer.	Cheltenham.	April 13th, 1908.	—	—
88	Clerk.	Engineer's Branch, Leeds.	March 6th, 1908.	—	—
89	Fem. S. C. & T.	Ballymoney (Ireld.).	—	—	—
90	Telegraphist.	C. T. O., London.	March 24th, 1908.	—	—
91	Postman.	W. D. O., London.	—	—	—
92	Sorter.	Circulation Office, London.	April 22nd, 1908.	—	—
93	Sorter.	E. C. D. O., London.	—	—	—
94	C. C. & T.	St. John's Wood, London.	April 15th, 1908.	—	—
95	Postman.	W. D. O., London.	—	—	—
96	Telegraphist.	C. T. O., London.	April 13th, 1908.	—	—
97	Telegraphist.	Edinburgh.	—	—	—
98	Sorter.	W. C. D. O., London.	—	—	—
99	Postman.	Huddersfield.	April 29th, 1908.	—	—
100	Fem. S. C. & T.	Braintree.	—	—	—
101	Fem. Teleph.	Brighton.	—	—	—
102	Asst. Hd. Post.	West Brompton, London.	—	—	—
103	Sorter. [of No. 54).	N. W. D. O., London.	—	—	—
104	Asst. Insp. Mes. (readmission	Swiss Cottage.	May 11th, 1908.	—	—
105	Fem. Teleph.	Central Exchange, London.	—	—	—
106	Sorter.	Paddington D. O., London.	—	—	—
107	Porter.	W. C. D. O., London.	—	—	—
108	Postman.	South Lambeth, London.	—	—	—

The consent is contained in the form of admission, the lower half of which is sent to the postmaster of the town to which the member is attached when the membership commences. The money having been deducted and brought to account at the headquarters of the Comptroller and Accountant-General in London, is then paid in bulk by warrant to the treasurer of the society. This method of collection insures regularity of contribution, avoids arrears, and gives the full value of the subscription to the society. There is little doubt that the collection of subscriptions by the Postmaster-General, which was undertaken at my suggestion, has gone far towards insuring the success of the society and keeping down the cost of administration. It forms, indeed, a very valuable contribution to the movement by the Post Office Department, and may be reckoned as a species of State aid.

Propaganda and recruitment of new members.—For the purpose of disseminating information concerning the society and assisting in recruitment, show-cards are, by consent of the Postmaster-General, hung in the retiring rooms and waiting-rooms used by the staffs at the post offices throughout the kingdom. Over 2000 of these cards have been issued. Local committees are encouraged for the purposes of organisation, and the literature of the National Association is used for purposes of propaganda. In addition, a circular letter is supplied to local secretaries for the purpose of appeals to non-members. It is intended to bring this up to date from time to time.

Medical papers and routine of treatment.—A member qualified for benefit under the Rules (Rule III., secs. 1 to 8), having reason to believe that he is suffering from the symptoms of early pulmonary tuberculosis, applies to the secretary for the necessary forms of certificate, &c. He is supplied with papers, accompanied by a circular letter of instructions. The papers, after being filled up, are returned to the secretary of the society, and the certificate form is forwarded by him to the secretary of the sanatorium accompanied by a certificate setting out that the applicant is a member of the affiliated society. The patient is then referred to the nearest medical referee of the sanatorium who fills in a further certificate form. Should the case be considered unsuitable by the referee, the patient is informed and the routine ends. Should he, however, be suitable, the referee's certificate is returned to the secretary of the society. A copy is made and attached to the papers and accompanied by a covering letter is forwarded to the Secretary of the General Post Office. On the consideration of these papers leave is granted for a period of about from four to six weeks and the patient proceeds to the sanatorium, his travelling expenses being paid by the society. At the end of that period a further supplementary medical report is filled in by the medical superintendent of the sanatorium and forwarded to the Secretary, General Post Office. On this report further leave is granted and the series of reports is continued at intervals until the patient's discharge. This discharge is entirely in the discretion of the sanatorium authorities; the society, being desirous that the best medical results should be obtained, sets no limit to the stay, and does not in any way interfere with the medical discretion. Post Office medical officers—numbering over 2000—in all parts of the country have been instructed in the class of case likely to prove suitable by the issue to them of a circular letter in which is set out, *inter alia*, the desirability of seeking among their catarrhal and dyspeptic patients for the signs of incipient phthisis. By this means and by the publication of the "Symptoms of Early Consumption of the Lungs" in the Rule Book and on the show cards it is sought to get the cases before they are too far advanced for successful treatment. The result of these efforts has been that we have obtained our patients far earlier in the course of their disease than those received from societies not adopting similar means. The friends of patients have been able to detect early symptoms in the sufferers and have urged them to seek advice.

Support of patient's family during treatment.—The whole of the patient's salary is paid by the Post Office Department for six months and the half during a further six months. This money goes in its entirety to support his family. No charge is made upon him for his treatment at the sanatorium, and his railway expenses are paid on admission and discharge (Rule III., sec. 7). By this means all source of worry is removed from the patient and his family, and the usual reason for incomplete treatment is avoided.

Record of membership.—In consequence of the method of collection the record of membership is very simple. The name, rank, office, and date of joining the society are in the case of each member entered in a ledger under the name of the office. Each half year new entrants and alterations are notified to each postmaster on a special form.[5] Postmasters not receiving such a notice of addition to membership employ another form for the purpose of notifying any alterations due to transfers, resignations, deaths, &c. These alterations are entered in the ledgers and the record thus brought up to date.

Voluntary contributions to building fund.—The above organisation represents the means of maintaining beds. But the erection of Benenden Sanatorium has been by voluntary contribution, and in this contribution participating societies have been invited to share. The Post Office Society has subscribed over £650 in this way by voluntary contributions of small sums by its members. Fines inflicted on the post office staff for late attendance are, by permission of the Postmaster-General and with the consent of the staff, allocated for the purpose of the building fund.

General considerations.—The Post Office Society, by its methods and success, has been the chief support of the National Association during the initial stages of its work. The post office staff, comprising men and women of all grades of society, and scattered throughout the country, has been an excellent means of propagating the ideas and knowledge necessary as forerunning the practical work of cure and prevention of tuberculosis. Local committees have been formed and have acted as missionary centres whose work has reached far outside post office circles. The society itself stands as an example of what working men and women can do by self-help and of how it can be done and at what cost. In its capacity as exemplar it has had a tremendous effect in stimulating interest and encouraging application. The intelligent interest of the post office staff has facilitated the distribution of literature to the best advantage, and if the movement for self-help against tuberculosis among the workers meets with its deserved and expected success it will owe very much of that success to the example of the Post Office Sanatorium Society and to the men and women who have come from the ranks of the post office movement to aid the progress of the larger work.

APPENDIX A.

The following are the "symptoms" referred to in the text. They form page 4 of the book of rules of the Post Office Sanatorium Society:—

The Symptoms of Early Consumption of the Lungs.

A hint to those who may be suitable patients for the sanatorium. Application must be made *in the earliest stages*, and not when already ill and weak. Chronic or advanced cases *cannot be* retained or received in a sanatorium.

Indigestion, very *gradual loss of weight* and strength, slight pains about the shoulders and back, *cough* at first dry and tickling, occasional *sweating* at night or on slight exertion, shortness of breath and palpitation, and a *pale complexion* becoming *flushed in the afternoon and evening*, are symptoms which, taken together, demand a thorough examination of the chest stripped to the waist. A history of blood-spitting or of pleurisy in such a case is a strong additional reason for examination.

Suggested by Dr. Lister, physician to the Mount Vernon Hospital for Consumption, Hampstead and Northwood, and honorary advisory physician to the Council of the National Association for the Establishment and Maintenance of Sanatoria for Workers suffering from Tuberculosis.

The following is an abstract from the show cards exhibited in the retiring rooms of post offices throughout the United Kingdom:—

The Symptoms of Early Consumption of the Lungs: Hints to those who may be Suitable Patients for the Sanatorium.

Persons suffering from indigestion, loss of weight and strength, night sweats, cough, with or without blood-spitting, should at once be thoroughly examined by a doctor.

APPENDIX B.

The following is a copy of a circular letter issued to post office medical officers:—

7, Elm Bank Gardens, Barnes, S.W.
January, 1908.

DEAR SIR,—With the permission of the Postmaster-General I am sending you under the same cover a copy of the rules of the Post Office Sanatorium Society, from which you will be able to obtain particulars of its organisation and methods.

The society is in no sense official, although its membership is entirely composed of post office employees, but is a purely voluntary effort to

[5] These forms are supplied by the society but are stocked by the stores department of the General Post Office and issued with the ordinary official stationery.

deal with cases of early consumption among its members. As some 34,000 persons of either sex have been enrolled it is probable that some of the patients who come to you for advice may be members. It will therefore be useful to you to know the working of the society and the type of case which it is prepared to deal with.

The sanatorium at Benenden (Kent), to which as many as possible of our cases are sent, is devised only for the earliest stages of the disease, is intended to be largely educational, and is quite unsuitable for very acute cases, or for chronic or advanced cases, or for rapidly advancing cases. The institution has sufficient staff and facilities to deal with early cases, able to be up and about almost from the day of admission, or with the small percentage of complications that occur in such well-selected early cases.

As general rules for the selection of cases the Council of the sanatorium is advised to suggest that:—

(1) Cases which have existed for more than six months from the outset (dry cough and indigestion and lassitude), and still more so, cases which have been unable to work for more than a few weeks, are likely to be unsuitable for sending to the medical referees.

(2) Cases which present any evidence of the disease in more than one lobe of the lung require very careful selection.

(3) Cases presenting disease in more than two lobes, or complicated by other affections (e.g., diabetes, Bright's disease, chronic bronchitis, alcoholism), are unsuitable for sending to the referees.

(4) Cases which have previously undergone arrest after an attack involving only a limited area of lung, and have remained in good health for a considerable time (i.e., not immediate relapse on return from an institution) and are otherwise suitable (as above suggested) should be sent to the referees.

From motives of benevolence a few advanced cases have been sent to the institution in error, one arriving moribund after a journey of over 200 miles. Unsuitable cases can only suffer by being sent to such a sanatorium as Benenden, and should be referred to the chest hospitals, or infirmaries, or treated at home. On the other hand, the medical attendants of the postal staffs can greatly assist in this attempt to check the waste due to pulmonary tuberculosis, by seeking out the cases of early tubercle among their dyspeptic and catarrhal patients and advising the patient, if he is a member of the Sanatorium Society, to apply to the secretary of the society with a view to obtaining treatment. The best cases for sanatorium treatment would be detected by the symptoms, by the thermometer and by auscultation, before the expectoration contains tubercle bacilli, or is typical in appearance.

The treatment given by the society can only be given to its members under any circumstances. To these, however, there is absolutely no charge, and if application is made under Rule III., section 7, all travelling expenses incurred in visiting the medical referee, and in going to and from the sanatorium, will be paid.

Trusting to receive your coöperation and assistance in the work,

I am, yours faithfully,

C. H. GARLAND, Secretary.

Post Office Branch of the National Association for the Establishment and Maintenance of Sanatoria for Workers Suffering from Tuberculosis.

MOTORING NOTES.

BY C. T. W. HIRSCH, M.R.C.S. ENG., L.R.C.P. LOND.

AN important part of a car, one that seldom gives trouble, though it is as a rule grossly neglected, is the springs which take the strain and weight and intercept vibration. Considering how often the springs of a car are left to look after themselves, the small number that break speaks well for the excellence of the material of which they are made usually and of the manner in which they are forged and tempered. A broken spring may lead to serious trouble and all could be avoided by a little attention. In order that a spring may do its work properly each component plate must work clear and free of its neighbours, but as a result of the entrance of washing or rain-water between the plates one may become rusted and thus set and then it may fracture. All this can be prevented by making a rule, say once every three months, to jack up the car, to loosen the clips that keep the component plates together, to clean them with paraffin oil between each, to wipe them dry, and then to spread a layer of grease between each. When the general overhaul takes place the spring should be taken down, dismembered, and each plate scraped, oiled, and then the whole reassembled. When this is done the shackle pins should receive attention. Many motorists, even some who really take an especial pride in the sweet running of their machinery, would be astonished if they examined these parts, I have often seen pins taken out that were more than three-quarters worn through, and I must confess that I once found such a hinge pin on one of my own cars. Until quite recently motor manufacturers merely made little holes for the lubrication of these parts, holes that collected mud, water, and dust, and required cleaning out every time one wanted to put oil in. Now I am glad to say that proper lubricators seem as a rule to be fitted, and even then they are difficult to oil properly, because a shackle pin is subject to a heavy load and the reciprocating motion about it is slight, so there is a tendency for the lubricant to accumulate on the upper side, where the pressure is normally zero and it does not spread over the actual bearing surface, as in the case of a shaft which rotates, so it is as well, in addition to daily oiling them, to take them out occasionally and to see that the oil does not remain on the top and when replacing to grease them all round. Attention to such little matters as these prevents breakdowns and expense. In order that they should not be overlooked it is well to have a "garage" day once a month, and among other points that should then be seen to is the inspection of hinge and shackle pins. I keep two cars and each has one garage day a month, when valves can be, if needful, ground in; all nuts checked and, if required, tightened; all moving parts oiled; sparking plugs cleaned or replaced by new ones; clutch leather inspected, and if necessary dressed with collan oil or fuller's earth; crank case emptied of oil, cylinders washed with paraffin, dirty paraffin drained, and case filled up to correct level with clean oil, and about once in 12 months the bevel and gear boxes require similar treatment and filling up with fresh grease, and, of course, every month they should be inspected and either grease or oil added. Lubricating pipes are also better for a monthly wash out with paraffin. From chats I have had with colleagues who own cars, seemingly few ever wash out their gear and bevel boxes. It should be remembered that there must always be a certain amount of wear in the bearings, and that thus fine metallic dust finds its way into the grease and oil, and this is anyway not an ideal lubricant for the gears. The procedure is to fill the gear and bevel boxes up with paraffin, and then run the car to and fro; this will reduce the consistency of the lubricant, so that when the plug underneath is taken out the mixture will run out; then the plug should be replaced, and more paraffin added. In the gear box the lid can be removed, and the gears brushed over with an old tooth-brush; and to clean the bevel and differential boxes the back axle can be jacked up and the wheels turned round, so that the grease and paraffin are well mixed before the plug is taken out. After replacing the plug and filling up with paraffin and again working the parts the dirty paraffin can be run off and fresh grease and oil added. It is important to remember that in cars having a direct drive on the top gear, the first motion shaft is in two parts, that by means of some form of dog clutch is made solid when driving direct on the high speed, but on the other speeds one portion of this shaft revolves in the other, a gun-metal bush being, as a rule, provided. As a result of centrifugal action the grease may not enter this bearing and it is one that is very apt to "fire." In gear boxes with this form of transmission it is well to use a large proportion of oil in the gear box and also occasionally to remove the lid and with an oil squirt inject some lubricant directly into this bearing. In many cars with this type of transmission I have seen this bearing so worn after a few months that a new bush had to be fitted, a job that meant taking down the gear box and which could have been avoided by using thinner oil and occasionally personally lubricating the bearing. It is much less trouble to do that than to have a new bush turned and fitted. A friend of mine has recently fitted to his gear box a simple arrangement that makes it absolutely certain that this bearing gets its dose of oil. To the side of the gear box a strip of spring steel is fixed so that it presses against the oil hole in the first motion shaft; this hole, of course, pierces the outer sleeve of the shaft and the gun-metal bush and there ends in an oil-way; as the shaft revolves, the spring, gently pressing, acts as a sort of pump and also prevents the lubricant that so enters into the bearing from being thrown out, and then, if there is a proper oil-way cut on the inside of the bush, that bearing is bound to be kept greased. As the shaft revolves in grease the pressure of the spring will not cause any friction worth mentioning.

Accumulators are long-suffering parts of a car, and really if they receive the attention they should the trade in these articles would not be brisk. The great thing is to use them and also never fully to discharge them. A good plan is to have three, two always on the car, and to use one one day and the other on the following, and once every three weeks to take out one and replace it by a fully charged one, the taken out one being left at an electric light station for charging and fetched in three weeks, when another can be

left for charging and the fully charged one put in its place. Of course, if the motor shed is lighted by electricity a board with resistance can be put up and then each accumulator can have a small charge every night while the lamps are on to clean the car. The cells must not be charged with too heavy a current nor too rapidly. Ten hours at one or one and a half ampères is safe, otherwise as the paste cannot take up the gases that are evolved it swells, and may press on the lead plates, which thus become distorted and so internal "shorts" may occur. Another important point is always to keep the plates well covered by the acid, otherwise "sulphating" may take place. The diluted acid should have a specific gravity of 1·15, and of course should be made with B.P. sulphuric acid and distilled water, roughly 1 part of acid to 5 of water. Hydrometers are sold which show exactly the correct mixture. Those needing new accumulators will find the "Fors" (which is sold by Messrs. Richard Pape, Limited, of 59, New Oxford-street, London) a distinct improvement on the usual type. The makers have gone back to the original shape and make the plates cylindrical. The negative is contained in a porous pot and outside this is the cylindrical positive grid. The advantage is that buckling is impossible as well as internal short circuits. On most electric storers of this kind, through the action of the acid, the terminals corrode and so easily break away. On these a grease cup covered by a celluloid plate prevents the creeping of the acid and thus this complication. It is a good plan on all accumulators to smear some thick oil or vaseline over the terminals after attaching the leads as, of course, the grease prevents the acid eating into the terminal, but even though this is done it is as well to fix the accumulator so that it does not shake about when the car moves, and thus permit acid to come out of the vent plug-holes. Wedging the accumulator in with rubber sheeting is a good plan. For purpose of lightness the containing boxes are now usually made of celluloid; on the side of low weight this is an advantage, but the celluloid is rather liable to crack. It can be patched by fixing over the crack a thin bit of celluloid with nitrite of amyl; in an emergency an ordinary capsule used for angina pectoris may be broken and the few drops spread over the break, after cleaning the surface, and this may be sufficient to make a union by "first intention," though if two or three capsules can be spared a better job results from fixing over the fissure an artificial scab in the shape of a thin strip of celluloid.

The "Fors" patent accumulators are also supplied in teak cases with four or six cells, thus giving either eight or 12 volts, and these seem well suited for Roentgen ray work, for the cautery, cystoscope, for the ordinary forehead electric lamp, as well as for lighting the car by electric light, their great advantage being the impossibility of short circuiting, as the positive plate is absolutely separated by the porous pot from the negative plate, and from the original construction of the cell the impossibility of plate buckling. The 40 ampère hour four-cell only weighs just over five pounds and I found it answer well with my four-cylinder car, and also to be capable of lighting a three candle-power tail lamp, as well as the ordinary laryngoscope light. These accumulators should therefore be of great use to the medical motorist.

BRITISH MEDICAL BENEVOLENT FUND.

AT the September meeting 18 applications for help were received and grants amounting to £170 voted in relief. Two annuities, value £20 each, were filled by selected candidates. Appended is an abstract of the cases assisted:—

Daughter, aged 38 years, of M.D. who is a pensioner of Epsom College. Applicant has hip-joint disease, but is obliged to nurse and to attend to her aged parents who are both bedridden. Relieved three times, £17. Voted £12.

M.R.C.S., aged 71 years. Has been disabled for several years. Only income a pension of £18 per annum. Voted £12.

Widow, aged 61 years, of M.R.C.S., L.S.A. Income a few shillings a week. Eight children, but only one able to help and others barely self-supporting. Voted £6.

Widow, aged 59 years, of M.B. Lond., M.R.C.S. Husband's means nearly exhausted by the long illness which preceded his death. Children only able to give very slight help. Voted £5.

Daughter, aged 57 years, of late M.R.C.S., L.S.A. Used to be a governess but for some years past, owing to permanent and increasing deafness, has been obliged to support herself by needlework. Relieved seven times, £71. Voted £5.

Daughter, aged 62 years, of late M.D. Lond., M.R.C.P. Lond. Used to be fairly provided for but is now penniless owing to family misfortunes. Relieved once, £10. Voted £12.

Widow, aged 47 years, of L.R.C.P. Edin. Quite unprovided for at husband's death a few years ago and dependent on small earnings from needlework and a little help from a brother-in-law. Two children, aged 17 and 13. Relieved three times, £30. Voted £10.

Daughter, aged 60 years, of late M.R.C.S., L.S.A. Has supported herself as a housekeeper for several years but is now in ill-health and practically penniless. Relieved twice, £22. Voted £12.

Widow, aged 53 years, of L.R.C.P. Edin. No income; health indifferent; slight help from children. Relieved once, £10. Voted £10.

Daughter, aged 62 years, of late M.R.C.S., L.S.A. Used to keep a school but was forced to give up owing to competition and now finds it impossible to obtain remunerative employment. No income and health very delicate. Relieved twice, £20. Voted £10.

Widow, aged 64 years, of L.S.A. No income and dependent on a son earning a small salary as a clerk. Relieved seven times, £78. Voted £12.

Daughter, aged 57 years, of late L.F.P.S. Glasg. Maintained herself for many years as a governess but was obliged to assist her mother and has now exhausted her small savings. Relieved once, £5. Voted £5.

Daughter, aged 37 years, of late F.R.C.S. Eng. Suffers from tuberculous disease of a large joint and consequently only able to undertake very light employment. No income. Relieved twice, £24. Voted £12.

Widow, aged 40 years, of M.B. R.U.I. Quite unprovided for at husband's death a few years ago and is now training as a midwife in the hope of supporting herself and two children, aged 12 and ten years. Relieved four times, £47. Voted £10.

Widow, aged 38 years, of M.B., C.M. Aberd. No income. Endeavours to support herself by taking boarders. Two children, aged ten and eight years. Relieved once, £5. Voted £5.

Daughter, aged 60 years, of late M.R.C.S., L.S.A. Has held several good situations as dispenser, but is now unable to get employment on account of age. Income £12 a year. Relieved twice, £20. Voted £12.

Daughter, aged 62 years, of late L.R.C.S., L.S.A. Has supported herself by nursing, &c., but is now practically incapacitated by ill-health. Relieved six times, £57. Voted £10.

Daughters, aged 44 and 36 years, of late L.S.A. Are both unable to earn a living on account of physical infirmities, and consequently dependent on their mother whose income is very small. Relieved four times, £48. Voted £12.

OXFORD UNIVERSITY MUSEUM.

ON Oct. 8th the jubilee of the Oxford University Museum was celebrated. The ceremony fittingly began with the conferment of an honorary degree upon two distinguished chemists—viz., Professor Svante August Arrhenius and Mr. Augustus George Vernon Harcourt, F.R.S. The Vice-Chancellor's procession entered the Sheldonian Theatre a few minutes after noon, there being a number of distinguished doctors of various Faculties coming from various universities in the procession. There were also sundry representatives of the Drapers' Company.

The VICE-CHANCELLOR (Mr. T. H. Warren, D.Sc.) opened the proceedings by saying that the object of the Convocation was to confer the honorary degree of Doctor of Science upon Professor Arrhenius and Mr. Vernon Harcourt. The Grace was then passed in the usual way.

Professor LOVE then presented Professor Arrhenius in the following words:—

Adest nobis iure ornandus Svante Augustus ARRHENIUS, qui non solum in eo Scientiæ Naturalis genere, quod a Physicæ et Chemiæ confinibus proxime abest, et viam monstravit et ipse palmas plurimas reportavit, sed etiam quæstiones, quæ ad Philosophiam Naturalem pertinent, subtilissime tractavit. Qui vir, cum doceret quo modo corpora vi electrica percurrente in elementa, ex quibus constant, dissolvantur, gloriam insignissimam consecutus est: neque minus insignes sunt eius de orbis terræ origine et vetustate ultima, de fontibus quibus alatur solis calor, de planetarum conditione, possitne animantibus et plantis sedem præbere, luculentissimæ quæstiones. Inter eos qui in his rebus versati sunt nescio an omnium primus intellexerit, quanti momenti sit illud, corpora luci obnoxia quasi pondere quodam premi, quod expendi possit. Neque ei satis erat de Chemia, Geologia, Astronomia præclare mereri: quin his proximis annis hominum utilitatibus inservire voluit, cum medicamina venis inecta novo more ad pestes arcendas quantum valeant minutissime quæreret.

The VICE-CHANCELLOR conferred the degree in the following words:—

Vir eminentissime, acutissime, Linnæi patria dignissime, qui et indagandi subtilitate et vi ratiocinandi, si quis alius, vales,

magni primordia mundi,

Et rerum causas, et quid natura, docere:

Ego auctoritate mea et totius Universitatis admitto te libenter ad gradum Doctoris in Scientia, honoris causa.

Mr. Vernon Harcourt was presented by Professor LOVE as follows:—

Musei nostri quinquagesimum iam ætatis suæ annum ineuntis natalem diem celebramus. Scientiam etiam Experimentalem apud nos eodem die renatam salutamus. Occasionem hanc nactis ornandus nobis est Augustus Georgius Vernon HARCOURT qui et ipse discipulus inter primos hoc in loco institutos et postea multos per annos inter doctores nostros eminebat. Qui vir cum non uno in genere et Scientiæ promovendæ et hominum usui profuerit in primis est laudandus quod—in hac quidem re collega usus Professore nostro Saviliano, Willelmo Esson—illam legem naturæ invenit, qua elementorum cœtus et dissolutiones reguntur, maximo sane chemicorum omnium fructu, qui longe

accuratius quam antea res iam investigare poterant. Idem lampada effinxit miro modo sibi constantem, qua usus lucem e sole, vel astro, vel lychno quolibet emissam metiri posset: idem denique rationem excogitavit, qua illius *φαρμάκων νηπενθῶς* quo utuntur medici tenuissimam quamque guttam expenderet. Harum rerum inventorem non solum de Academia nostra, sed de omnibus qui Scientiæ incumbunt, atque adeo de universo hominum genere bene meruisse iure dixerim.

The VICE-CHANCELLOR in admitting Mr. Vernon Harcourt to the degree said:—

Vir ingeniosissime, quem non solum decem lustra multa cum utilitate, multa cum laude scientiæ dedita, sed nota animi bonitas, mentis acumen, caritas discipulorum et discipularum innumerabilium, denique familiaritas nec brevis nec infirma Oxonie tue commendant, quemque hodie reducem omnes tam lætis oculis aspicimus, ego auctoritate mea et totius universitatis admitto te libenter ad gradum Doctoris in Scientia, honoris causa.

Next came the presentation of various addresses of congratulation on behalf of various universities and learned societies, the Vice-Chancellor receiving each several one with some appropriate comment.

A letter was then read from the Chancellor regretting his inability to be present but in which he sent his warmest good wishes to the University and referred with gratitude to the magnificent gifts of the Drapers' Company, the latest of which is that of £25,000 for the equipment of an electrical laboratory. The Convocation was then dissolved.

The VICE-CHANCELLOR in his address which followed said that the present gathering was a landmark in the history of natural science at Oxford. 50 years ago the site of the museum was a green field. The museum had passed through the period of its infantine diseases and was now launched on life. Before that time the professors of science "wandered about in caves and dens of the earth." Story-Maskelyne and Brodie taught and were taught in cellars. Now natural science had its palace, more or less equipped. But buildings were not all, and the list of past Oxford scientific names was notable, from Roger Bacon, through Wallis, Wren, and Bradley to Henry Smith. Linacre and Sydenham were among the greatest names in English medicine. Buckland left Oxford in 1845 despairing to obtain a museum or organised scientific instruction; but what he despaired of, in a decade Acland, with the help of Pusey among others, carried out. As for the Vice-Chancellor's own relations to science, they were those of an amateur, but of a keenly interested amateur, from the days when as a boy he came under the influence of W. B. Carpenter; his recollections covered the memory of successive keepers of the museum, Philips, Henry Smith, Dr. Tylor, the father of English anthropology, then present, and Professor Miers. Medical science had been resurrected in Acland, Burdon-Sanderson, and Osler. And the methods of science reflected upon other studies and promoted research. Still, as Professor Ray Lankester complained of our public men, natural science was not yet brought home to our younger students. The very guesses of early Greek thinkers should be familiar to men of science. The student of Aristotle should read Darwin and the student of Darwin study, as Huxley did, Aristotle. So much for the past; for the future the outlook was brilliant, as well through the munificence of benefactors as from the high qualities of the constantly increasing staff of the museum.

In the afternoon a reception was held in the University Museum buildings, the Vice-Chancellor presiding at a meeting held in the lecture theatre to hear an address from Dr. A. G. Vernon Harcourt on the Early History of the Museum. The room was crowded long before the commencement of the lecture and a proportion of visitors were unable to gain admission.

Dr. HARCOURT referred to the condition of science in the University some 50 years ago and then recalled the fact that in July, 1847, Dr. Henry Acland drew up a memorandum which was signed by Dr. Daubeny, professor of chemistry and botany, P. B. Duncan, keeper of the Ashmolean Museum, Robert Walker, reader in experimental philosophy, and by himself as Lees Reader in anatomy. It proposed that the contents of the Ashmolean Museum, the anatomical museum in Christ Church, and the geological collection in the Clarendon should be transferred to an edifice where there should be also lecture rooms and an apartment to serve as a library for scientific meetings. Unfortunately, Dr. Buckland, professor of geology and Dean of Westminster, who was in charge of the geological collection, refused to sign on the ground that any progress of natural history in Oxford was hopeless. "It was," he wrote, "a detriment to a candidate for a degree or a fellowship to have given any portion of his time and attention to objects so alien from what is thought to be the proper business of the University as natural history in any of its branches." This reply was a great discouragement to Dr. Acland and might have turned his attention to the other of the two objects which he, with others, was pursuing concurrently—namely, the development of natural science education in Oxford. In November of the following year he put his views on this subject together in the form of a published letter addressed to Dr. Jacobson. The creation of the natural science school and the extension of natural science teaching might not have been much delayed if it had lacked the aid of Dr. Acland's advocacy. But it was not so with his other object—the building of the museum. The balance of advantage, it could not be doubted, was with the plan of gathering all the natural sciences, as far as possible, under one roof. Others helped but he led the way. For the task which he undertook he had extraordinary qualifications. Dr. Harcourt concluded by saying that though he was there to take part in celebrating the birth of the museum, he must express his sympathy with, and his belief in the great advantage of, college laboratories, a welcome and splendid addition to which had just been made by Jesus College. The great additions which had been made recently to the buildings both marked the advance of scientific teaching and showed that the University was still ready to make provision for that teaching with open hand. He asked all present to join in hoping that that which was done there in the two directions of increasing knowledge and the handing it down, might be worthy of the efforts made by those who planned and added to the building. They had aimed at providing investigators and students with every facility for rapid and successful work.

At the conclusion of the address a vote of thanks, moved by Professor H. F. MIERS, the newly elected Principal of the University of London, and seconded by Professor BOYD DAWKINS, was unanimously accorded. A marble bust of the late Professor W. F. R. Weldon was then presented to the delegates by Dr. Fowler on behalf of the committee and accepted by the Vice-Chancellor. The proceedings then terminated.

THE LONDON MEDICAL EXHIBITION.

As announced in our issue last week the annual London Medical Exhibition took place at the Horticultural Hall, Vincent-square, Westminster. The exhibition opened on Oct. 5th and lasted up to the evening of the 9th. The drug trade was strongly represented and the variety and quality of the exhibits on the whole did not suffer by comparison with those of previous exhibitions. The stalls in the Horticultural Hall were tastefully arranged and the organising committee had spared no pains to render the exhibition a social as well as a commercial success. A considerable number of medical men availed themselves of the opportunity afforded them of viewing in favourable circumstances many of the latest advances in pharmaceutical preparations and in surgical, scientific, and sanitary appliances. As in the accounts of the exhibition in former years, the pharmaceutical preparations may first briefly be considered.

Messrs. Duncan, Flockhart, and Co. (148, Farringdon-road, London, E.C.) had at their stall specimens of various anæsthetic products, including Duncan's chloryl anæsthetic. Capsules and compressed tablets, containing drugs in almost every conceivable combination and in infinite variety, were to be seen, and preparations of the formates and antiseptic powder and ointments. Perhaps the largest and fullest exhibit from a pharmaceutical standpoint was that of William Martindale (10, New Cavendish-street, London, W.). Among the many exhibits were: arsamin, a new organic arsenic compound; soluble ear bougies, and clinical test cases; an opsonic index outfit for collecting specimens of blood on the medical man's rounds; capsules of amyl nitrite and of isobutyl nitrite; compound asthma fluid, active and pure beer yeast in powder, and faxin pills made of the extract; glycerine extracts of drugs; injectio antim. oxid. used in conjunction with sodium coumarate in the treatment of cancer; "ovules" of glyco-gelatin

and theobroma basis for gynæcological use; "solubes" for preparation of antiseptic lotions; trilactine, lactic acid bacilli for the treatment of intestinal fermentation due to pathogenic bacteria; and unguentum thorii oleas employed in the treatment of eczema. Messrs. Parke, Davis, and Co. (Beak-street, Regent-street, London, W.) as usual showed a large assortment of their various medicinal specialities and medical appliances. Among the exhibits which attracted attention were a "Glaseptic" nebuliser and "Glaseptic" pocket nebuliser for naso-pharyngeal medication, and medicine cases for the motor-car, carriage, hand, or pocket. The bacterial vaccines exhibited by this firm were of the greatest interest. These vaccines consist of bacterial cultures which have been sterilised at a temperature of 60° C., and which have been diluted with a ½ per cent. solution of lysol. They are put up in glass bulbs which in each case contain a little more than 1 cubic centimetre of vaccine. Messrs. Parke, Davis, and Co. supply staphylococcus, streptococcus, gonococcus, tubercle and typhoid vaccines. Another comprehensive display of pharmaceutical preparations was made by Messrs. Burroughs, Wellcome, and Co. (Snow Hill Buildings, London). Of the recently introduced medicinal products shown by this firm may be mentioned the arylarsonates, organic arsenical preparations for use in the treatment of sleeping sickness, syphilis, and malaria; the "Ernutin" preparations, presenting the active therapeutic principle of ergot; and the suprarenal gland preparations to which has been given the name of "Hemisine." There were also shown specimens of the zinc salt of sulphanilic acid issued under the name of "Nixin," a non-irritating and non-toxic antiseptic. Messrs. Evans, Sons, Lescher, and Webb, Limited (60, Bartholomew-close, London, E.C.), made a special feature of their exhibit of "Membroids," that is, of drugs inclosed in a membrane by a process invented by themselves. Drugs subjected to this mechanical process are stated to pass through the stomach undissolved into the intestines where solution and absorption take place.

Digestive products and pancreatic extracts were to be seen in great variety at the stall of Messrs. Fairchild Bros. and Foster (Snow-hill Buildings, London, E.C.). Among the most noteworthy of these were "Pepsenica," a solution of the essential organic ingredients of the gastric juice extracted directly from the peptic glands of the stomach; pepsin in scales, soluble and suitable for the preparation of pepsin solutions, wines, &c.; zymine, an extract of the pancreas presenting all the active principles of the gland in the form of a dry whitish powder, and other preparations from the pancreas gland. Pills, tablets, suppositories, and triturates of every description were exhibited by Messrs. Arthur H. Cox and Co., Limited (Brighton, and 37, Berners-street, London, W.). The display of the Charles H. Phillips Chemical Company (14, Henrietta-street, Covent Garden, London, W.C.) consisted of their well-known "milk of magnesia" and of "phospho-muriate of quinine compound." Messrs. John Timpson and Co., Limited (104 and 106, Golden-lane, London, E.C.), sole agents for Messrs. Johnson and Johnson, exhibited specimens of this firm's aseptic and antiseptic dressings, surgical and medicinal plasters, and Red Cross ligatures and sutures. Several original and antiseptic preparations were on the stall of Messrs. C. J. Hewlett and Son, Limited (35–42, Charlotte-street, London, E.C.), including "somnigen," an opium preparation, and antithermogen, an antiseptic and absorbent dressing. Lin. betulæ co., a combination of oil of sweet birch, useful in the external treatment of rheumatism, sciatica, lumbago, &c., and mist. tussi rub. conc., a compound of hydrobromic acid, chlorodyne, ether, and hydrocyanic acid, are other preparations shown by Messrs. Hewlett. Among the exhibits of Messrs. Knoll and Co. (8, Harp-lane, London, E.C.) were bromural, a nerve sedative and mild hypnotic, diuretin used in the treatment of dropsy and cardiac asthma, and tannablin employed especially in the diarrhœa of children. The J. D. Riedel Company (Cross-lane and Harp-lane, London, E.C.) showed specimens of chemical and organic products, and of thiol, a synthetic compound of sulphur for use in diseases of the skin, rheumatism, and gout. At the stall of Messrs. Thomas Christy and Co. (4, 10, and 12, Old Swan-lane, Upper Thames-street, London, E.C.) might be seen many therapeutic agents of value. The most prominent of these were ergotole, a liquid preparation of ergot from which all irritating, nauseating, and inert principles were said to have been removed, and an anti-diabetic yeast. The Angier Chemical Co., Limited (32, Snow-hill, London, E.C.) exhibited specimens of their well-known emulsion and throat tablets. Coalin, the active principle isolated from bile, was the chief exhibit of Messrs. T. Morson and Son (14, Elm-street, Gray's Inn-road, London, W.C.). Coalin is stated to be useful in the treatment of complaints arising from an inefficient and disordered bile flow. Messrs. A. and M. Zimmermann (3, Lloyd's Avenue, London, E.C.), agents for Schering, Kalle, and Co. and Hell and Co., exhibited the preparations of these firms, including antistreptococcus serum (Dr. Aronson), the organotherapeutic preparations of Professor Dr. A. von Poehl, St. Petersburg, and bilitin, suggested for use in the treatment of gall-stones. Novocain was the sole exhibit of the Saccharin Corporation, Limited (165, Queen Victoria-street, London, E.C.). Messrs. Oppenheimer, Son, and Co., Limited (179, Queen Victoria-street, London, E.C.) had a full and interesting display of their up-to-date preparations. There were shown serums of various kinds, "palatinoids" and "bipalatinoids" and a preparation known as "wychodyne," distilled from *Hamamelis Virginiana*. Cocacorn, extract of acorn combined with cocoa; thermogene, an absorbent medicated wool; and California syrup of figs were exhibited by Messrs. Fassett and Johnson (31 and 32, Snow-hill, London, E.C.), representing Messrs. Seabury and Johnson. The chemicals and pharmaceutical preparations on exhibition by Messrs. E. Merck (16, Jewry-street, London, E.C.) were in keeping with the high reputation of the firm. Elixir lactopeptine, by the use of which as a vehicle it is claimed that the irritant properties and unpleasant taste of certain drugs are avoided, was on view at the stall of Messrs. John Morgan Richards and Sons, Limited (46, Holborn-viaduct, London, E.C.). Messrs. Leslies, Limited (Spencer House, South-place, Finsbury, London, E.C.), displayed in great variety plasters, surgical dressings, bandages, and gauzes. Formolyptol, a formaldehyde preparation, and hæmaboloids were the distinctive exhibits of Messrs. Andrus and Andrus (46, Holborn-viaduct, London, E.C.). A large and diversified assortment of medical preparations was to be seen at the stall of the Anglo-American Pharmaceutical Co., Limited (3 and 5, Frith-road, Croydon). Among the most noticeable of these were Huxley's syrups of acid glycerophosphates, iodoleine, and lactoformalin pigment. Izal in many forms was shown by Messrs. Newton, Chambers, and Co., Limited (331, Gray's Inn-road, London, W.C.). A few useful pharmaceutical preparations and dietetic biscuits and lozenges were exhibited by Messrs. Rouse and Co. (12, Wigmore-street, Cavendish-square, London. W.). The Maltine Manufacturing Co. (24 and 25, Hart-street, London, W.C.) had on view "maltine" and Carnrick's liquid peptonoids. Messrs. Corbyn, Stacey, and Co., Limited (673, Commercial-road East, London, E.) had a good display of drugs and chemicals and of pharmaceutical preparations.

(To be continued.)

Looking Back.

FROM

THE LANCET, *SATURDAY*, Oct. 16th, 1830.

GENTLEMEN,—It is but a short time since one of the most distinguished members of our legislative body asked me, what was meant by MEDICAL JURISPRUDENCE? Were such a question to be put now, one might, with tolerable safety (though certainly not with perfect politeness) refer the inquirer to the bill-stickers of London and Middlesex. To some in my situation, it might appear to be a dream, or merely a picture drawn in the imagination—that a branch of medical study, unrecognised by any of the medical authorities in this kingdom should have raised such a ferment in society as we have just seen it do; should have roused the attention of men of all classes; should have caused the assembling of 50,000 sensible and well-conducted persons, for no other purpose than to listen with eagerness to one of our profession, while he described the nature, the vital

importance, even I may say, the *political* importance of *medical jurisprudence;* should have induced the expenditure of 10,000*l.* or 12,000*l.*, and led to a trial of intellectual strength and moral influence, between the mighty profession of the law, and the modest pretensions of the sons of Æsculapius. Yes, gentlemen, and much more than this, has been already accomplished, and there is yet more to be done in pursuit of the particular object, concerning which there may have occurred a difficulty, but it is almost unnecessary to inform you, that there has been no defeat. I have said that all this might, to some standing in a situation similar to that which I now occupy, appear to be a vision, an unreal thing; but I foresaw it long ago; and although many of my friends are ready to testify that my own expectation as to participating in the advantages had long been faint enough, they are able also to declare, that my language on the subject of others reaping where certainly it had been my task to sow, had all along been confident and convincing.[1]

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In 76 of the largest English towns 8155 births and 3979 deaths were registered during the week ending Oct. 10th. The annual rate of mortality in these towns, which had been equal to 13·2 and 13·3 per 1000 in the two preceding weeks, declined to 12·8 in the week under notice, a lower rate than had prevailed in these towns in any week since the beginning of June. During the 13 weeks of last quarter the annual death-rate in these towns averaged 13·4 per 1000, and in London the mean rate in the same period did not exceed 12·5. The lowest annual death-rates in these towns during the week under notice were 3·4 in Hornsey, 6·2 in East Ham, 6·3 in Walthamstow, and 6·7 in West Bromwich; the rates in the other towns ranged upwards, however, to 18·5 in South Shields, 19·4 in Bury, 21·8 in Grimsby, and 24·5 in Tynemouth. In London the death-rate during the week did not exceed 12·2 per 1000. The 3979 deaths from all causes in the 76 towns showed a further decrease of 130 from the numbers returned in recent weeks, and included 514 which were referred to the principal epidemic diseases, against numbers declining from 1343 to 521 in the six preceding weeks; of these 514 deaths, 347 resulted from diarrhœa, 47 from measles, 43 from scarlet fever, 33 from whooping-cough, 28 from diphtheria, and 16 from "fever" (principally enteric), but not one from small-pox. The deaths referred to these epidemic diseases during the week were equal to an annual rate of 1·7 per 1000, corresponding with the rate that prevailed in each of the two preceding weeks; in London the death-rate from these diseases last week did not exceed 1·2. No death from any of these epidemic diseases was registered last week in Cardiff, Hornsey, Aston Manor, West Hartlepool, Hastings, or in Barrow-in-Furness; whereas the annual death-rate therefrom ranged upwards in the other large towns to 5·7 in Tynemouth, 5·9 in Rochdale, 6·2 in Preston, and 9·8 in Rotherham. The deaths attributed to diarrhœa in the 76 towns, which had ranged in the seven preceding weeks from 1134 to 353, further declined to 347 in the week under notice; the highest annual death-rates from this cause during last week were 4·1 in Wigan and in Merthyr Tydfil, 4·9 in Great Yarmouth, 6·2 in Preston, and 6·5 in Rotherham. The 47 fatal cases of measles showed a further increase upon recent weekly numbers, and caused annual rates equal to 1·7 in Huddersfield, 2·0 in Middlesbrough, 2·3 in Bootle, and 2·5 in Rotherham. The 43 deaths from scarlet fever also showed a decided increase upon the low numbers in recent weeks; the highest rates therefrom were 1·1 in St. Helens and 1·5 in Bootle; 16 fatal cases of this disease were registered in London and its suburban districts and six in Liverpool. The highest recorded death-rate from diphtheria was in Croydon, where the five deaths were equal to an annual rate of 1·7. The 33 fatal cases of whooping-cough showed a further decline, and were fewer than in any previous week of this year, but caused death-rates equal to 1·7 in Southampton and 1·9 in Tynemouth. The deaths referred to "fever," which had been 35 and 23 in the two preceding weeks, further declined last week to 16, of which three occurred in Bolton. The number of scarlet fever patients under treatment in the Metropolitan Asylums and the London Fever Hospitals, which had steadily increased in the five preceding weeks from 2855 to 3648, had further risen to 3742 on Saturday, Oct. 10th; the number of new cases of this disease admitted to these hospitals during the week under notice were 550, against 625, 565, and 576 in the three preceding weeks. The deaths in London referred to pneumonia and other diseases of the respiratory organs, which had steadily increased in the five preceding weeks from 102 to 159, declined to 156 in the week under notice, and were 31 below the corrected average number in the corresponding week of the five years 1903–07. The causes of 25, or 0·6 per cent., of the deaths registered in the 76 towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were again duly certified in Manchester, Leeds, Bristol, West Ham, Sheffield, Newcastle-on-Tyne, Nottingham, and in 44 other smaller towns during the week under notice; the 25 uncertified causes of death included four in Birmingham, five in Liverpool, and two both in St. Helens and Gateshead.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in eight of the principal Scotch towns, which had been equal to 14·4, 13·5, and 13·4 per 1000 in the three preceding weeks, rose again to 13·6 in the week ending Oct. 10th. During the 13 weeks of last quarter the annual death-rate in these eight towns averaged 13·8 per 1000 and exceeded by 0·4 the mean rate during the same period in the 76 English towns. Among the eight Scotch towns the death-rate during the week under notice ranged from 10·5 and 11·6 in Leith and Edinburgh respectively to 15·8 both in Glasgow and in Aberdeen. The 481 deaths in the eight towns showed an increase of seven upon the low number in the previous week, and included 55 which were referred to the principal epidemic diseases, against numbers declining from 107 to 63 in the seven preceding weeks; of these 55 deaths, 28 resulted from diarrhœa, 11 from diphtheria, nine from whooping-cough, five from "fever," and two from scarlet fever, but not one either from measles or from small-pox. These 55 deaths were equal to an annual rate of 1·6 per 1000, which was 0·1 below the mean rate from the same diseases in the 76 large English towns. The deaths attributed to diarrhœa in the eight Scotch towns, which had declined in the five preceding weeks from 64 to 30, further fell to 28 in the week under notice; 19 occurred in Glasgow, three in Aberdeen, and two each in Edinburgh, Dundee, and Greenock. The fatal cases of diphtheria, which had been eight and six in the two previous weeks, rose to 11 in the week under notice, including six in Glasgow, two in Edinburgh, and one each in Dundee, Aberdeen, and Paisley. The nine deaths from whooping-cough, which included six in Glasgow and two in Dundee, showed a decline of seven from the number in the previous week. The five deaths referred to "fever" corresponded with the number in the previous week, three being fatal cases of enteric and two of cerebro-spinal meningitis; three were returned in Glasgow, and two (of enteric) in Paisley. The two deaths from scarlet fever occurred in Glasgow and Dundee. The deaths referred to diseases of the respiratory organs in the eight towns, which had been 59 and 61 in the two previous weeks, further rose to 62 in the week under notice, and exceeded by ten the number returned in these towns in the corresponding week of last year. The causes of 17, or 3·5 per cent., of the deaths registered during the week in the eight towns were not stated or not certified; in the 76 English towns during the same week the proportion of uncertified causes of death did not exceed 0·6 per cent.

HEALTH OF DUBLIN.

The annual rate of mortality in Dublin, which had been equal to 20·8 and 18·0 per 1000 in the two preceding

[1] Excerpt from Introductory Lecture on Medical Jurisprudence delivered at the Theatre in Webb-street, Tuesday, Oct. 5th, 1830, by John Gordon Smith, M.D., &c. Dr. Smith's remarks alluded to the election of coroner for East Middlesex which took place in September, 1830, when Mr. Thomas Wakley, the Editor of THE LANCET, offered himself as the first medical candidate for the office, but after a very severe contest found himself in a minority of 136 on a poll of 7204, the successful candidate being Mr. Baker, a solicitor. Mr. Wakley eventually (on Feb. 25th, 1839) became coroner of West Middlesex.

ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON DURING SEPTEMBER, 1908.

(Specially compiled for THE LANCET.)

CITIES AND BOROUGHS.	Estimated population in the middle of 1908.	NOTIFIED CASES OF INFECTIOUS DISEASE.										DEATHS FROM PRINCIPAL INFECTIOUS DISEASES.												
		Small-pox.	Scarlet fever.	Diphtheria.*	Typhus fever.	Enteric fever.	Other continued fevers.	Puerperal fever.	Erysipelas.	Cerebro-spinal meningitis.	Total.	Annual rate per 1000 persons living.	Small-pox.	Measles.	Scarlet fever.	Diphtheria.*	Whooping-cough.	Typhus fever.	Enteric fever.	Other continued fevers.	Diarrhœa.	Total.	Annual rate per 1000 persons living.	Deaths from all causes.	Death-rate per 1000 living.	Deaths of infants under one year to 1000 births.
LONDON...	4,795,757	1	2095	596	—	118	2	17	337	6	3172	8·6	—	45	28	45	40	—	27	—	654	839	2·3	4686	12·8	153
West Districts.																										
Paddington	150,923	—	49	15	—	5	—	—	11	—	80	6·9	—	—	1	1	1	—	2	—	14	19	1·6	143	12·4	121
Kensington	182,752	—	52	12	—	4	—	—	7	—	75	5·3	—	—	1	2	—	—	—	—	16	19	1·4	144	10·3	162
Hammersmith	124,012	—	26	15	—	—	—	—	2	—	43	4·5	—	—	—	2	3	—	—	—	18	23	2·4	122	12·8	139
Fulham	171,562	—	43	40	—	3	—	1	9	1	97	7·4	—	1	—	3	3	—	2	—	30	39	3·0	148	11·2	192
Chelsea	75,049	—	11	15	—	1	—	—	2	—	29	5·0	—	—	—	3	—	—	—	—	9	12	2·1	96	16·7	180
City of Westminster	170,546	1	34	13	—	4	—	—	10	—	62	4·7	—	1	—	—	—	—	—	—	10	11	0·8	151	11·5	170
North Districts.																										
St. Marylebone	126,367	—	55	6	—	4	—	—	6	—	71	7·3	—	—	—	1	—	—	2	—	7	9	0·9	121	12·4	59
Hampstead	92,654	—	10	9	—	1	—	—	3	—	23	3·2	—	—	1	—	—	—	1	—	—	2	0·3	50	7·0	86
St. Pancras	237,075	—	56	31	—	7	—	2	11	3	110	6·1	—	1	1	2	1	—	2	—	19	26	1·4	217	11·9	135
Islington	349,091	—	161	42	—	11	1	2	16	—	233	8·7	—	1	—	2	5	—	1	—	34	43	1·6	310	11·6	113
Stoke Newington	54,015	—	9	3	—	1	—	1	2	—	16	3·9	—	1	1	—	—	—	—	—	5	7	1·7	35	8·4	96
Hackney	235,253	—	129	34	—	12	—	1	20	—	196	10·9	—	1	1	2	2	—	1	—	45	52	2·9	226	13·1	148
Central Districts.																										
Holborn	54,466	—	12	7	—	1	—	—	5	—	25	6·0	—	—	—	—	—	—	—	—	5	6	1·2	57	12·6	101
Finsbury	96,007	—	41	7	—	2	—	2	10	—	62	8·4	—	—	4	1	1	—	—	—	19	25	3·4	121	16·4	126
City of London	19,252	—	5	2	—	—	—	—	2	—	9	6·1	—	—	—	—	—	—	—	—	—	—	—	16	10·8	63
East Districts.																										
Shoreditch	115,227	—	58	18	—	7	—	—	8	—	91	10·3	—	—	3	2	3	—	2	—	28	38	4·3	162	18·4	203
Bethnal Green	131,066	—	107	20	—	4	—	1	17	—	149	14·8	—	—	3	1	2	—	—	—	25	31	3·1	166	16·5	196
Stepney	310,706	—	298	45	—	10	—	—	41	—	394	16·5	—	3	3	5	1	—	3	—	56	76	3·2	366	15·4	193
Poplar	171,516	—	132	22	—	6	—	1	17	—	178	13·5	—	3	2	1	1	—	3	—	27	37	2·8	201	15·3	160
South Districts.																										
Southwark	210,442	—	89	26	—	2	—	3	23	1	144	8·9	—	5	—	6	2	—	—	—	45	58	3·6	241	14·9	182
Bermondsey	127,910	—	57	20	—	1	—	2	14	—	94	9·6	—	9	—	3	1	—	—	—	28	41	4·2	182	18·5	181
Lambeth	321,344	—	157	24	—	10	1	1	19	1	213	8·6	—	4	4	4	4	—	3	—	47	66	2·7	315	12·8	145
Battersea	183,873	—	103	38	—	3	—	—	11	—	155	11·0	—	—	1	—	—	—	—	—	26	27	1·9	146	10·4	166
Wandsworth	289,506	—	115	32	—	4	—	—	16	—	167	7·5	—	2	1	2	3	—	1	—	32	41	1·8	243	10·9	138
Camberwell	280,022	—	73	26	—	1	—	—	18	—	118	5·5	—	3	1	1	4	—	—	—	37	46	2·1	270	12·6	143
Deptford	117,539	—	61	16	—	5	—	—	11	—	93	10·3	—	3	—	—	1	—	3	—	24	31	3·4	120	13·3	193
Greenwich	109,110	—	34	11	—	1	—	—	10	—	56	6·7	—	—	—	1	—	—	—	—	16	17	2·0	90	10·8	127
Lewisham	156,627	—	53	26	—	5	—	—	8	—	92	7·7	—	2	—	1	—	—	—	—	15	18	1·5	112	9·3	121
Woolwich...	131,346	—	65	21	—	3	—	—	6	—	95	9·4	—	—	—	—	2	—	1	—	17	20	2·0	114	11·3	163
Port of London	—	—	—	—	—	—	—	—	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

* Including membranous croup.

weeks, further declined to 16·4 in the week ending Oct. 10th. During the 13 weeks of last quarter the death-rate in Dublin averaged 19·9 per 1000; the mean rate during the same period did not exceed 12·5 in London and 12·9 in Edinburgh. The 124 deaths of Dublin residents during the week under notice showed a further decline of 12 from the numbers in the two preceding weeks, and included 19 which were referred to the principal zymotic diseases, against numbers declining from 44 to 17 in the seven preceding weeks. These 19 deaths were equal to an annual rate of 2·5 per 1000; the rate during the same week from these diseases did not exceed 1·2 in London and 0·7 in Edinburgh. Of the 17 deaths in Dublin during last week, seven resulted from diarrhœa, four from "fever," four from measles, and two both from diphtheria and whooping-cough, but not one either from scarlet fever or from small-pox. The deaths attributed to diarrhœa have declined in the past eight weeks from 39 to seven. The four deaths referred both to "fever" and to measles corresponded with the numbers respectively returned in the previous week. The 124 deaths from all causes during the week included 27 of infants under one year of age and 25 of persons aged upwards of 60 years; the deaths of elderly persons showed a marked decline. Six inquest cases and six deaths from violence were registered; and 44, or 35·5 per cent., of the deaths occurred in public institutions. The causes of four, or 3·2 per cent., of the deaths registered during the week in Dublin were not certified; in London the causes of all but one of the 1122 deaths were duly certified, while in Edinburgh the proportion of uncertified causes of death was 3·8 per cent.

VITAL STATISTICS OF LONDON DURING SEPTEMBER, 1908.

In the accompanying table will be found summarised complete statistics relating to sickness and mortality in the City of London and in each of the metropolitan boroughs. With regard to the notified cases of infectious diseases, it appears that the number of persons reported to be suffering from one or other of the nine diseases specified in the table was equal to an annual rate of 8·6 per 1000 of the population, estimated at 4,795,757 persons in the middle of the year; in the three preceding months the rates were 5·6, 6·5, and 6·3 per 1000 respectively. The lowest rates last month were recorded in Hammersmith, Chelsea, the City of Westminster, Hampstead, and Stoke Newington; and the highest rates in Hackney, Bethnal Green, Stepney, Poplar, and Battersea. Scarlet fever showed a greatly increased prevalence in September compared with that recorded in other recent months; among the several metropolitan boroughs this disease was proportionally most prevalent in Hackney, Shoreditch, Bethnal Green, Stepney, Poplar, and Battersea. The Metropolitan Asylums Hospitals contained 3431 scarlet fever patients at the end of last month, against 2514, 2693, and 2807 at the end of the three preceding months; the weekly admissions averaged 506, against 307, 372, and 365 in the three preceding months. Diphtheria also was more prevalent than it had been in the preceding month; the greatest proportional prevalence of this disease was recorded in Fulham, Chelsea, Shoreditch, Bermondsey, Battersea, and Wandsworth. The number of diphtheria patients under treatment in the Metropolitan Asylums Hospitals at the end of last month was 953, against 768, 738, and 843 at the end of the three preceding months; the weekly admissions averaged 128, against 95, 100, and 110 in the three preceding months. The prevalence of enteric fever showed a slight increase last month; this disease was proportionally most prevalent in Paddington, Hackney, Shoreditch, Poplar, and Deptford. There were 95 enteric fever patients under treatment in the Metropolitan Asylums Hospitals at the end of last month, against 48, 54, and 69 at the end of the three preceding months; the weekly admissions averaged 18, against eight, nine, and 12 in the three preceding months. Erysipelas was proportionally most prevalent in Finsbury, the City of London, Bethnal Green, Stepney, Poplar, Southwark, and Bermondsey. The 17 cases of puerperal fever notified during the month included three which belonged to Southwark, and two each to St. Pancras, Islington, Finsbury, and Bermondsey. Of the six cases notified as cerebro-spinal meningitis three belonged to St. Pancras, and one each to Fulham, Southwark, and Lambeth.

The mortality statistics in the table relate to the deaths of persons actually belonging to the various boroughs, the deaths occurring in institutions having been distributed among the several boroughs in which the deceased persons had previously resided. During the four weeks ending Sept. 26th the deaths of 4696 persons belonging to London were registered, equal to an annual rate of 12·8 per 1000; in the three preceding months the rates had been 10·4, 10·3, and 12·9 per 1000. The rates of mortality in the several boroughs ranged last month from 7·0 in Hampstead, 8·4 in Stoke Newington, 9·3 in Lewisham, 10·3 in Kensington, and 10·4 in Battersea, to 15·3 in Poplar, 15·4 in Stepney, 16·4 in Finsbury, 16·5 in Bethnal Green, 16·7 in Chelsea, 18·4 in Shoreditch, and 18·5 in Bermondsey. The 4696 deaths from all causes included 839 which were referred to the principal infectious diseases; of these, 45 resulted from measles, 28 from scarlet fever, 45 from diphtheria, 40 from whooping-cough, 27 from enteric fever, and 654 from diarrhœa, but not any from small-pox, from typhus fever, or from ill-defined pyrexia. No death from any of these infectious diseases was recorded in the City of London; they caused the lowest rates in the City of Westminster, Kensington, Hampstead, St. Marylebone, St. Pancras, and Holborn, and the highest rates in Fulham, Finsbury, Shoreditch, Bethnal Green, Stepney, Southwark, Bermondsey, and Deptford. The 45 deaths from measles were equal to the corrected average number in the corresponding period of the five preceding years; the greatest proportional mortality from this disease was recorded in Stepney, Poplar, Southwark, Bermondsey, and Deptford. The 28 fatal cases of scarlet fever were six fewer than the average; this disease was proportionally most fatal in Finsbury, Shoreditch, Bethnal Green, Stepney, Poplar, and Lambeth. The 45 deaths from diphtheria showed a slight decline from the corrected average number; among the various metropolitan boroughs the highest death-rates from this disease were recorded in Hammersmith, Fulham, Chelsea, Shoreditch, Stepney, Southwark, and Bermondsey. The 40 deaths from whooping-cough were 30 below the average number for the corresponding period of the five preceding years; this disease was proportionally most fatal in Hammersmith, Fulham, Islington, Shoreditch, Bethnal Green, Camberwell, and Woolwich. The 27 fatal cases of enteric fever were slightly fewer than the corrected average number; the greatest proportional mortality from this disease was recorded in Paddington, Fulham, St. Marylebone, St. Pancras, Shoreditch, Poplar, and Deptford. The 654 deaths from diarrhœa were 118 below the average number in the corresponding period of the five preceding years; this disease was proportionally most fatal in Hackney, Finsbury, Shoreditch, Bethnal Green, Southwark, Bermondsey, and Deptford. In conclusion, it may be stated that the aggregate mortality in London last month from these principal infectious diseases was nearly 14 per cent. below the average.

Infant mortality, measured by the proportion of deaths among children under one year of age to registered births, was equal to 153 per 1000. The lowest rates of infant mortality were recorded in St. Marylebone, Hampstead, Stoke Newington, Holborn, and the City of London, ; and the highest rates in Fulham, Chelsea, Shoreditch, Bethnal Green, Stepney, Southwark, Bermondsey, Battersea, and Deptford.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments are notified:—Fleet-Surgeons: J. Chambers to the *President*, additional, as health lecturer at Home Ports; J. M. Rogers to the *Orion;* R. H. Nicholson to the *President*, additional, for Royal Victoria Yard, Deptford; T. Austen to the *London;* and J. McElwee to the *Actæon*, Staff-Surgeon: E. T. Meagher to the *Britannia* on recommissioning. Surgeons: E. B. Kenny to the *Egmont;* H. B. German to the *Orion;* H. Woods to the *Indus;* F. M. V. Smith to the *Speedwell;* T. A. Smyth to the *Speedy;* H. Stone to the *Espiegle*, additional, for Royal Naval College, Dartmouth, temporary; and G. T. Verry to the *Victory*, additional, for Haslar Hospital.

ROYAL ARMY MEDICAL CORPS.

Major Lionel A. Mitchell is placed on temporary half-pay on account of ill-health (dated August 21st, 1908).

* Including membranous croup.

Lieutenant-Colonel H. J. Fletcher and Major E. C. Anderson, D.S.O., proceed to India in December next. Major E. W. Bliss is ordered to India for duty with the Northern Army.

SPECIAL RESERVE.

Infantry: In accordance with the terms of the Order in Council dated April 9th, 1908, the following Militia unit, having completed the prescribed period of annual training, is transferred as a unit of the Army Reserve, and the following officer, having assented to be transferred, is appointed an officer of the Special Reserve of Officers from the date stated, retaining the rank and seniority which he held while in the Militia:—4th Battalion, The East Surrey Regiment (dated Sept. 6th, 1908): Surgeon-Lieutenant-Colonel M. O. Coleman

TERRITORIAL FORCE.

Yeomanry.

Derbyshire: The undermentioned officer from the Derbyshire Imperial Yeomanry is appointed to the regiment with rank and precedence as in the Imperial Yeomanry (dated April 1st, 1908): Surgeon-Captain William Tweed Hannah. Lincolnshire: Surgeon-Lieutenant Robert Black Purves, from the Lincolnshire Imperial Yeomanry, to be Surgeon-Lieutenant, with precedence as in the Imperial Yeomanry (dated April 1st, 1908). South Nottinghamshire Hussars: The undermentioned officer, from the Nottinghamshire (South Nottinghamshire Hussars) Imperial Yeomanry, is appointed to the regiment with rank and precedence as in the Imperial Yeomanry (dated April 1st, 1908): Surgeon-Lieutenant William Trethowan Rowe. Pembroke (Castlemartin): Surgeon-Captain James Wilson, from the Pembroke Imperial Yeomanry, to be Surgeon-Captain, with precedence as in the Imperial Yeomanry (dated April 1st, 1908). Staffordshire: Surgeon-Lieutenant Ambrose Henry Palmer, from the Staffordshire (Queen's Own Royal Regiment) Imperial Yeomanry, to be Surgeon-Lieutenant, with precedence as in the Imperial Yeomanry (dated April 1st, 1908). Surgeon-Lieutenant Ambrose H. Palmer to be Surgeon-Captain (dated June 24th, 1908). The Surrey (The Princess of Wales's): Surgeon-Captain Reginald Courtenay Gayer, from the Surrey (The Princess of Wales's) Imperial Yeomanry, to be Surgeon-Captain, with precedence as in the Imperial Yeomanry (dated April 1st, 1908). Dorset (Queen's Own): Surgeon-Captain George Herbert Staines Daniell, from the Dorset (Queen's Own) Imperial Yeomanry, to be Surgeon-Captain, with precedence as in the Imperial Yeomanry (dated April 1st, 1908). Gloucestershire (Royal Gloucestershire Hussars): Surgeon-Major Herbert Bramwell, from the Gloucestershire (Royal Gloucestershire Hussars) Imperial Yeomanry, to be Surgeon-Major, with precedence as in the Imperial Yeomanry (dated April 1st, 1908). West Somerset: Surgeon-Captain Charles Farrant, from the West Somerset Imperial Yeomanry, to be Surgeon-Captain, with precedence as in the Imperial Yeomanry (dated April 1st, 1908). Warwickshire: Surgeon-Major Roger Bullock, from the Warwickshire Imperial Yeomanry, to be Surgeon-Major, with precedence as in the Imperial Yeomanry (dated April 1st, 1908).

Royal Garrison Artillery.

Cornwall: The undermentioned officers from the 1st Cornwall (Duke of Cornwall's) Royal Garrison Artillery (Volunteers) are appointed to the unit, with rank and precedence as in the Volunteer Force (dated April 1st, 1908): Surgeon-Major Robert Garven Nesbitt and Surgeon-Lieutenant Edwyn Gaved Andrew.

Royal Engineers.

1st Wessex Field Company, Wessex Divisional Engineers: Surgeon-Major Joseph Fuller, from the 1st Devonshire and Somersetshire Royal Engineers (Volunteers) to be Surgeon-Major, with precedence as in the Volunteer Force (dated April 1st, 1908). 2nd Wessex Field Company, Wessex Divisional Engineers: Surgeon-Captain Edward Gaved Stocker, from the 1st Devonshire and Somersetshire Royal Engineers (Volunteers), to be Surgeon-Captain, with precedence as in the Volunteer Force (dated April 1st, 1908).

Infantry.

4th Battalion, Northumberland Fusiliers: The undermentioned officers, from the 1st Volunteer Battalion, The Northumberland Fusiliers, are appointed to the battalion, with rank and precedence as in the Volunteer Force (dated April 1st, 1908): Surgeon-Major (Honorary Surgeon-Lieutenant-Colonel) Duncan Stewart and Surgeon-Lieutenant James Graham Miller. 9th Battalion, The King's (Liverpool Regiment): Surgeon-Major John William Ellis, from the 6th Volunteer Battalion, The King's (Liverpool Regiment), to be Surgeon-Major, with precedence as in the Volunteer Force (dated April 1st, 1908). Surgeon-Major John W. Ellis to be Surgeon-Lieutenant-Colonel (dated June 15th, 1908). 4th Battalion, Lincolnshire Regiment: The undermentioned officer, from the 1st Volunteer Battalion, The Lincolnshire Regiment, is appointed to the battalion, with rank and precedence as in the Volunteer Force (dated April 1st, 1908): Surgeon-Major George May Lowe. The undermentioned officer, from the 2nd Volunteer Battalion, The Lincolnshire Regiment, is appointed to the battalion, with rank and precedence as in the Volunteer Force (dated April 1st, 1908): Surgeon-Major Harry Poole Berry. 6th Battalion, Lancashire Fusiliers: Surgeon-Lieutenant-Colonel and Honorary Surgeon-Colonel Charles William Thorp, from the 2nd Volunteer Battalion, The Lancashire Fusiliers, to be Surgeon-Lieutenant-Colonel, with the honorary rank of Surgeon-Colonel, with precedence as in the Volunteer Force (dated April 1st, 1908). 5th (Flintshire) Battalion, Royal Welsh Fusiliers: The undermentioned officers, from the 2nd Volunteer Battalion, The Royal Welsh Fusiliers, are appointed to the battalion, with rank and precedence as in the Volunteer Force (dated April 1st, 1908): Surgeon-Lieutenant-Colonel and Honorary Surgeon-Colonel Edward Williams and Surgeon-Captain Alexander Paul Swanson. 6th Battalion, Royal Welsh Fusiliers: The undermentioned officers, from the 3rd Volunteer Battalion, The Royal Welsh Fusiliers, are appointed to the battalion, with rank and precedence as in the Volunteer Force (dated April 1st, 1908): Surgeon-Major Thomas Louis Kenrick Davies and Surgeon-Captain John Robert Williams. 6th Battalion, South Staffordshire Regiment: The undermentioned officer from the 3rd Volunteer Battalion, The South Staffordshire Regiment, is appointed to the battalion, with rank and precedence as in the Volunteer Force (dated April 1st, 1908): Surgeon-Captain Frederick Edge. 5th (Earl of Chester's) Battalion, Cheshire Regiment: Surgeon-Major and Honorary Surgeon-Lieutenant-Colonel Theodore Fennell, from the 3rd Volunteer Battalion, The Cheshire Regiment, to be Surgeon-Major with the honorary rank of Surgeon-Lieutenant-Colonel, with precedence as in the Volunteer Force (dated April 1st, 1908). Surgeon-Captain Henry William King, from the 2nd (Earl of Chester's) Volunteer Battalion, The Cheshire Regiment, to be Surgeon-Captain, with precedence as in the Volunteer Force (dated April 1st, 1908).

Royal Army Medical Corps.

North Midland Mounted Brigade Field Ambulance: Robert Burnet to be Lieutenant (dated April 1st, 1908).

1st South Midland Mounted Brigade Field Ambulance: William Edward Hugh Bull is appointed Transport Officer, with the honorary rank of Lieutenant (dated May 20th, 1908).

2nd South Western Mounted Brigade Field Ambulance: Major Augustus William Dalby, from the Gloucester and Somerset Bearer Company, Royal Army Medical Corps (Volunteers), to be Lieutenant-Colonel (dated April 1st, 1908).

2nd East Anglian Field Ambulance: John Kitton Howlett to be Lieutenant (dated Sept. 2nd, 1908).

1st Highland Field Ambulance: James Robertson to be Lieutenant (dated April 14th, 1908).

2nd Highland Field Ambulance: James Forbes MacIntosh to be Lieutenant (dated April 14th, 1908).

3rd Highland Field Ambulance: John Weir Fox to be Lieutenant (dated May 2nd, 1908). Lieutenant George W. Miller to be Captain (dated June 24th, 1908).

3rd Home Counties Field Ambulance: Stanley Allen Coad to be Lieutenant (dated August 22nd, 1908).

3rd London Field Ambulance: Captain Ernest Blechynden Waggett, from the London District, London Companies, Royal Army Medical Corps (Volunteers), to be Captain, with precedence as in the Volunteer Force (dated April 1st, 1908).

1st Lowland Field Ambulance: The announcement of the transfer from the Scottish Command, Glasgow Companies, Royal Army Medical Corps (Volunteers), and of his promotion to a Captaincy, of Lieutenant Archibald Jubb, which appeared in the *London Gazette* of July 14th, 1908, is cancelled, and the following substituted: Lieutenant

Archibald Jubb, from the Scottish Command, Glasgow Companies, Royal Army Medical Corps (Volunteers), to be Lieutenant, with precedence as in the Volunteer Force (dated April 1st, 1908).

2nd Lowland Field Ambulance: Alexander Macmillan Watson to be Lieutenant (dated May 7th, 1908).

1st West Riding Field Ambulance: Francis Darlow to be Lieutenant (dated July 24th, 1908). Walter Lister to be Lieutenant (dated August 21st, 1908).

2nd Northern General Hospital: The undermentioned to be officers whose services will be available on mobilisation (dated Oct. 14th, 1908): To be Lieutenant-Colonels: Thomas Churton, Thomas Pridgin Teale, Alfred George Barrs, and Harry Littlewood. To be Majors: Thomas Wardrop Griffith, Robert Lawford Knaggs, Berkeley George Andrew Moynihan, Albert Sydney Frankau Grünbaum, Henry Secker Walker, Walter Henry Maxwell Telling, Walter Thompson, and George William Watson. To be Captains: Joseph Faulkner Dobson and James Alane Coupland.

4th Northern General Hospital: The undermentioned to be officers whose services will be available on mobilisation (dated Oct. 14th, 1908):—To be Lieutenant-Colonels: Charles Brook, Charles Harrison, George Henry Grimoldby, and George Skelton Stephenson. To be Majors: William Arthur Carline, Edward Mansel Sympson, James Stitt Thomson, Thomas Walter Alfred Daman, Algernon Westlake, Charles Byron Turner, George William Shipman (late Surgeon-Lieutenant-Colonel, 4th Battalion Lincolnshire Regiment), and William Henry Breffit Brook. To be Captains: Devereux John Gregory Watkins, Edward Cecil Clements, Osmund Harry Chapman, George Alfred Cargill Shipman, Frederick Stephenson Genney, John Thomas Collier, Francis Bastow Cooper, Beattie McFarland, Andrew Burgess, Harold Charles Harrison, Arthur Alfred Pratt, Richard Ernest Edward South, Arthur Edward Wilson, Percy Cranston Phillips, Alexander Miller, Oswald Giles, John Edmund Saunders Passmore, and Frederick Ernest Withers.

2nd Scottish General Hospital: The undermentioned to be officers whose services will be available on mobilisation (dated July 21st, 1908):—To be Lieutenant-Colonels: George Alexander Gibson, Joseph Montagu Cotterill, Alexander Bruce, Charles Walker Cathcart. To be Majors: Robert William Philip, Francis Mitchell Caird, William Russell, George Andreas Berry, John James Graham Brown, James William Beeman Hodsdon, George Lovell Culland, David Wallace, C.M.G. To be Captains: Francis Darby Boyd, C.M.G., Harold Jalland Stiles, Robert Alexander Fleming, Henry Alexis Thomson, Hamilton Graham Langwill, Alexander Miles, Harry Rainy, Arthur Logan Turner, Douglas Chalmers Watson, William Guy, William Thomas Ritchie, John Wheeler Dowden, Edwin Bramwell, Archibald Adam Scot Skirving, C.M.G., James Gibson Cattanach, George Lyall Chiene, Edwin Matthew, William James Stuart, John Eason, and Edward William Scott Carmichael.

Surgeon-Captain William Balfour Fergusson, from the 1st Gloucestershire Royal Engineers (Volunteers), to be Major (dated April 1st, 1908). John Henry Harris (late Major, 1st Devonshire Royal Garrison Artillery (Volunteers)) to be Major (dated April 1st, 1908). Harry Findlater Wilkin to be Lieutenant (dated May 19th, 1908). Arthur Walker to be Lieutenant (dated August 26th, 1908).

Captain Alastair Norman Fraser, R.A.M.C., to be Adjutant of a School of Instruction, vice Major Alexander J. MacDougall, who has vacated that appointment (dated Sept. 1st, 1908).

VOLUNTEER CORPS.

Rifle: 1st Volunteer Battalion, The Northumberland Fusiliers: Surgeon-Lieutenant Robert McCoull resigns his commission (dated March 31st, 1908). 2nd Volunteer Battalion, The Lancashire Fusiliers: The undermentioned officer resigns his commission (dated April 1st, 1908): Surgeon-Lieutenant John A. C. Roy. 1st Volunteer Battalion, The Royal Welsh Fusiliers: The undermentioned officer resigns his commission (dated March 31st, 1908): Surgeon-Lieutenant James L. Duncan. 1st Volunteer Battalion, The Hampshire Regiment: Surgeon-Captain Douglas L. Thomson resigns his commission (dated March 31st, 1908).

At an investiture held by the King on Oct. 12th at Buckingham Palace Lieutenant-Colonel Francis Frederick Perry, I.M.S., Honorary Surgeon to the Viceroy of India, was invested with the Riband and Badge of a Companion of the Most Eminent Order of the Indian Empire.

Captain J. C. Holdich Leicester, I.M.S., has been appointed Civil Surgeon at Simla.

Correspondence.

"Audi alteram partem."

MEDICINE AS A BRANCH OF TECHNICAL EDUCATION.

To the Editor of THE LANCET.

SIR,—In the midst of the annual epidemic of oratory which attacks the medical schools at the commencement of the winter session it seems pitiful that any grain of wisdom should be lost in the chaff of platitude for want of a little winnowing. Such is my excuse for directing special attention to the masterly address of Sir Clifford Allbutt at Manchester. Pervaded as it is throughout with thoughts and opinions of the greatest value on many of the most difficult problems affecting the medical profession it may appear invidious to emphasise any particular feature. There is one, however, which has often seemed to me to account for many of the anomalies and difficulties which have arisen in medical education and has not before received such lucid exposition nor the attention which it merits. I refer to Sir Clifford Allbutt's remarks on the relation of university to technical study. It has too long been forgotten or ignored that medical education is a branch of technical education and that it has acquired an unwarrantable position in the university. The demonstration of this peculiarity of our profession is well set forth in Sir Clifford's address. Now it might be readily assumed that this has been altogether beneficial to medicine, and that if anyone has the right to grumble it is one or all of the other professions. On the contrary, whilst the advantages have, perhaps, not been small, there have undoubtedly been serious drawbacks. To mention only one, it is largely responsible for the multiplicity of portals to our profession, a condition which we are rightly coming to regard as an unmitigated evil. The extraordinary increase in recent years of provincial universities accentuates this evil and brings others in its train. Whether *under existing circumstances* the multiplication of universities is a boon or a bane to the medical profession, and still more to the public weal, is a proposition which is open to very serious argument. It is certainly no boon to the London medical schools, and it is therefore not easy for either Londoner or provincial to take an unprejudiced view. Without entering deeply into this question, it must be admitted that the wealth of London in hospitals, teachers, clinical material, combined with its political and geographical position, render it unique as a centre of medical education, and any deterioration which it undergoes must militate against the advance of medicine in the whole country. Now at the present time, if it is not deteriorating it is certainly not making such rapid advance as it should. The chief reasons are patent to all—viz., the deplorable condition of the University of London and, intimately related to that, the jealousies and internecine strife of corporate bodies having their own vested interests. It is here that Sir Clifford Allbutt's remarks are so illuminative. The corporate bodies alluded to, who shall be nameless, are, and must inevitably continue to be, chiefly concerned in the technical side of medical education. Their natural evolution is hampered and thwarted by the chains which link them to the university. Freed from the university their enormous fund of energy, potential for progress and now frittered away in the squabbles of petty jealousy, would be liberated for advance, each along its own line, and transformed into a healthy competitive stimulus.

This freedom of action can only be attained by a divorce, or better, a judicial separation, of the technical and university diplomas. Much as it may be desired, a single portal to the medical profession, such as exists in the German Staatsexamen, can scarcely be imagined within the bounds of practical politics when we consider the varied and conflicting

interests at stake. It appears to me, however, that it might be attained in modified but satisfactory form by equalising the examinations of the non-university examining boards which now grant diplomas qualifying to practise. These are the bodies which are essentially concerned in the technical side of medical education. The practical difficulties of the scheme would not be insuperable, the best method being probably the supervision of the examinations by moderators appointed by the General Medical Council. At the same time the universities must be disendowed of their power to grant diplomas qualifying to practise. They would lose little by the change and would gain greatly in freedom from thraldom to the General Medical Council. On the other hand, the various Colleges of Physicians and Surgeons would gain enormously.

Some such radical method of attacking the problem must be adopted if London is to be prevented from losing the premier position in Great Britain in medical education. As long as the London schools are tied to the University there is imminent danger of fiascoes like that of the University School for Preliminary Medical Studies recurring. Can it be imagined that any progress is possible under existing circumstances when it cannot be denied that your correspondent, "M.B., B.S. London," of last week expresses the opinions of a large body of medical graduates of the University of London? It is deplorable that a selfish pride in their own plumage should so blind them to the needs of their profession, but their attitude must be taken into consideration—at least, in its voting capacity.

I am, Sir, yours faithfully,

Wimpole-street, W., Oct. 10th, 1908. J. HERBERT PARSONS.

THE CAUSE AND PREVENTION OF DENTAL CARIES.

To the Editor of THE LANCET.

SIR,—There have of late years been many discussions on the causation of caries and other diseases of the teeth. These discussions have elicited a great deal of speculation and learned talk, but, strangely enough, have almost entirely left out of consideration the central and very important practical fact that nine-tenths of the diseases of the teeth are due to a faulty system of dieting. It is because Dr. J. Sim Wallace in his valuable paper to THE LANCET of Sept. 12th recognises this truth, which has long been apparent to me from my researches into the evolution of man's diet, that I welcome it. The means of securing and preserving good teeth are simple in the extreme. May I be permitted, by way of emphasising Dr. Wallace's position, to state what I conceive them to be as simply and forcibly as I can?

The prevention of dental diseases is, I say, a matter almost entirely of diet. Without entering into the question of feeding during the first months of life, I may observe in passing that the correct feeding of the infant involves the rigorous exclusion of every form of patent food. When the child begins to cut its teeth we should at once begin, though very cautiously, to give solid food with which, obviously, the teeth are intended to cope, and which therefore their appearance indicates as now suited to the needs of the growing child. Solid food may be conveniently referred to under the following heads: (*a*) Starchy food; (*b*) Sugar; (*c*) Fruit; and (*d*) Animal food.

(*a*) *Starchy food.*—All, or almost all, the starchy food should during the first years of life be given in a form compelling mastication; this plan not only enables the jaws and teeth to be properly exercised, but allows much of the starch to be digested in the mouth. Starchy foods of the liquid, pappy, spongy, and pultaceous order are to be avoided, the chief exception being the potato, which may be allowed in moderation. The best way to give starch—I entirely endorse Mr. Edmund Owen's remarks on this head—is in the form of well-baked bread-crust, to which butter, dripping, or bacon fat may be added. Hard biscuit is also good, but not nearly so good as the less brittle bread-crust. Directly the lower incisors are cut the infant may nibble at a leathery crust occasionally, but not until the molars appear should starch be allowed in any quantity. When at, say, the third year, the instinct to masticate has by these means been developed, softer starchy food, such as milk puddings or porridge, may be allowed in moderation, for mastication now being instinctive these will not be permitted to flood the stomach wholly undigested, and so to set up fermentative dyspepsia. Here let me add that the child even at this stage may be allowed as much green vegetables as it can digest.

(*b*) *Sugar.*—The supply of sugar should be meagre until the third or fourth year and when given concentrated it should only be at, or immediately after, the regular meal times. Sugar-cane may, however, be allowed almost indiscriminately, not only because the contained sugar is in a diluted form, but also because cane chewing exercises the jaws in a very efficient manner.

(*c*) *Fruit.*—Directly the incisors are cut the infant may be allowed occasionally to bite at some hard fruit—e.g., an apple, and as the child gets older other fruits may be added to the dietary.

(*d*) *Animal food.*—This may be given in any form in which it can be digested, for the young human is quite as much carnivorous as vegetarian. Directly dribbling at the mouth heralds the eruption of the teeth the child should be given a chop bone or a chicken bone to gnaw *ad libitum*, and this practice should be encouraged until the end of the second year or later. It should be borne in mind that the fleshy parts of animal food, unless toughened by bad cooking, do not require mastication in the strict sense of the term. Butchers' meat should be underdone rather than overdone.

The effect of following these simple rules would be practically to do away with dental disease in children and to effect an enormous reduction not only in dental, but in nasal, pharyngeal, aural, as well as many other diseases among neo-civilised peoples, both in early life and later. About the truth of this bold assertion there cannot be the slightest doubt in the mind of anyone who will look impartially at the facts of the case. What these facts are I have quite recently stated in my work "On Treatment," and there is no need for me to discuss them here in detail, but I may perhaps be permitted to restate a few of the chief.

I have shown (1) that from the anthropoid period of his career right up to the time when he began to cook his food man became increasingly carnivorous, and that at the close of this period, at least one-half of his food (probably more) was of the animal kind. (2) Further, that until the discovery of cookery very little crude starch was permitted to enter the human stomach, for not only were the supplies of this substance comparatively slender in pre-cookery days, but these slender supplies were entangled in a cellulose meshwork, which in almost every instance needed abundant mastication in order that the starch and other food-stuffs might be liberated and thus rendered capable of digestion. This circumstance necessitated an active use of the jaws and teeth which tended to their healthy growth and development and at the same time facilitated the buccal digestion of the ingested starch, whereby a considerable portion was converted into dextrines, and some indeed even into malt sugar, before it was permitted to enter the stomach. (3) That until the agricultural period (which long post-dated the discovery of cookery) man's only source of sugar, other than the limited supplies he obtained from fruits, &c., was wild honey.

Now let us glance at the present state of things. Not only has neo-agricultural man vastly increased his supplies of sugar and starch, not only does he consume these substances in an amount vastly in excess of that consumed by his not very remote ancestors, but—and this is the point I chiefly wish to drive home—practically the whole of his starchy food is in a liquid, pappy, spongy, or pultaceous form: the stomach and bowels are, in fact, deluged with crude starch which has suffered little or no buccal digestion, while the jaws and teeth get little or no real work.

I have said that animal food does not need any mastication to speak of. It is essentially the starchy portions of our food which demand prolonged chewing. *Yet there is scarcely a single article of vegetable food in the modern dietary which calls for more than a pretence at chewing.* Of the more common starchy foods of this country—potatoes (often mashed), bread (mostly new and with little well-baked crust), bread-and-milk, rusks soaked in milk, porridge, gruel, milk puddings (rice, tapioca, vermicelli, sago), other puddings (batter, suet, roly-poly, plum), cakes (seed, caraway, currant), scones, buns, sponge cakes, queen cakes, muffins, crumpets, pastry (in forms too numerous to mention), macaroni, blanc mange, biscuits—only bread-crusts and biscuits tend to excite mastication; and they very insufficiently, for the crusts are often soft and are, moreover, not rarely avoided, while the biscuits are generally of a kind

which readily crumble between the teeth. The rest slide down into the stomach with fatal facility and afford little or no exercise for jaws, teeth, or salivary glands. Dietetically speaking, the present age may, indeed, be characterised as the "Age of Pap."

Sir, the condition of the teeth among the British of to-day is calamitous. It is a disgrace to the nation. Only through our profession can that disgrace be removed. It is for us to wage hot and unremitting war against this pernicious system of rearing the young human on pap. When I think of the horrible condition of the teeth of the inhabitants of these islands—especially among the poor—of the millions of unsightly jaws containing irregular teeth, decaying teeth, dead teeth, teeth wobbling in pus-exuding sockets; of the festering gums and pestiferous breaths; of the multitudes of young men and women wearing artificial dentures; of the thousands who, even as I write, are racked with toothache and may soon be groaning in the dental torture chair—when I reflect that all these evils (and many others too numerous to mention here) can for the most part be obviated by the application of a few simple, commonsense principles, my eagerness to get the medical profession to realise the urgent need of a reform becomes the more insistent. Unfortunately it is precisely the simple, commonsense, prosaic truth, the truth which makes no striking appeal to the imagination, that is apt to be lost sight of.

May I, in conclusion, add that it is not my desire to be drawn into any controversy concerning the subject of this letter? I must ask those who do me the honour to read it to believe that I should not have dared to write so dogmatically had I not, by many years of careful investigation, convinced myself of the truth of what I have laid down.

I am, Sir, yours faithfully,

Wimpole-street, Oct. 3rd, 1908. HARRY CAMPBELL.

DEGREES FOR LONDON MEDICAL STUDENTS.

To the Editor of THE LANCET.

SIR,—Respecting the letter in THE LANCET of Oct. 10th, p. 1102, by "M.B., B.S. Lond.," there occur the following sentences: "After all, is the M.R.C.S., L.R.C.P. a qualification to be ashamed of? Surely it is of more value than many a Scotch or Irish degree." The answer to the first part is No. In respect to the latter statement all depends upon what is meant by the words "more value." If "more value" is used as regards the examinations to be passed and the average course of study to be undergone to obtain these qualifications then the declaration is correct, but if "more value" means that the conjoint diplomas of the London colleges are of greater value as a means of professional advancement and obtaining a living by the profession of medicine the assertion is hopelessly incorrect, for it must be well known that the diplomates in question are not permitted to use the title whereby members of the medical profession are known to the public and are at the same time excluded from many appointments open to the provincial graduate. The changes he deprecates would be brought about slowly and would in no material sense injure present London graduates. The question of reform or otherwise involves a much larger question, which, if not reasonably settled, will deprive London almost entirely of its position as a centre of medical education in the future.

I am, Sir, yours faithfully,

Oct. 0th, 1908. FREDERICK W. COLLINGWOOD.

To the Editor of THE LANCET.

SIR,—I was glad to read in THE LANCET of Oct. 10th, p. 1102, the timely protest of "M.B., B.S. Lond." against the agitation to lower the standard of London medical degrees in order to attract candidates. It recalls forcibly to one's mind the parable of the labourers in the vineyard, whose case, to the lay mind, seems hard, whatever the explanation of the expert theologian. We graduates are in the position of the man who, having waited for an hour or more at the theatre door, finds himself seated side by side with one who has pushed in at the head of the queue in the momentary confusion when the doors are opened. At the risk of being accused of selfishness I, for one, would say to those who would tamper with our degree, "Hands off!"

I am, Sir, yours faithfully,

Oct. 12th, 1908. "FAIR-PLAY."

HOSPITALS, PUBLIC MEDICINE, AND MEDICAL STUDIES.

To the Editor of THE LANCET.

SIR,—If a reason were required for continuing the custom of introductory addresses at the beginning of the session at the medical schools it would be found in the well-thought-out and masterly address of Sir T. Clifford Allbutt at the Victoria University, Manchester. I consider the medical profession deeply indebted to him for focussing many of the drawbacks, hardships, anomalies, and imperfections that at present exist in the profession, and I sincerely trust it will have the effect of stirring up our leaders to a sense of the importance of rectifying them and a just recognition of our claims to a place in the counsels of the State to which we are entitled.

There are few in our ranks who do not realise that we do not occupy that position in the public esteem which we should and which other sister professions have always commanded. I have long held the opinion that the profession should be represented in the Government of the country by the creation of a Ministry of Public Health, and Sir Clifford Allbutt in his address makes out an undeniable case in favour of such a scheme. The greater part of the work of the Local Government Board is medical. Then why have a layman who knows nothing of medicine as President? If the conviction was pressed home on the Government and public opinion by the heads of our profession and the licensing bodies of the country that a Minister of Health is necessary for the welfare of the nation, and as a just recognition of the invaluable and distinguished work done by its members, which has rendered government possible in many of our colonial dependencies, no doubt in time it would be granted, and I am certain no one would more heartily support the claims of our profession than His Majesty King Edward VII. The address also touches on the portal of qualification. I think the profession as a whole believes in the one-portal system, as a solution to the correspondence which has gone on in the medical journals *ad nauseam* for so many years as to "who shall be the greater." If the corporations would only sink their petty differences and meet together to decide on some plan, it should not pass the wit of man to devise a scheme equitable to all. The idea of a consultant department in all our principal hospitals, to which the general practitioner can have recourse, is excellent, and I am certain it would be greatly valued and appreciated by the younger and older members of the profession alike, besides being of immense value to the community.

The profession look to such able journals as yours to press home the well-thought-out and excellent reforms put forward in such a clear and moderate manner by this able member of our profession, of whom she is proud.

I am, Sir, yours faithfully,

Oct. 12th, 1908. JNO. POLLOCK SIMPSON.

THE CONTROL OF DISINFECTANTS.

To the Editor of THE LANCET.

SIR,—In your issue of Sept. 19th, p. 902, Dr. S. Rideal and Mr. J. T. A. Walker draw attention to the necessity which exists for the examination of disinfectants after they have been allowed to stand after dilution for 24 hours. The subject is one of considerable importance to users of disinfectants, as frequently a disinfectant solution is made up and allowed to stand for several days before it is completely used, so if the dilution necessary is calculated upon a freshly made emulsion which afterwards separates and which in this way has a lower efficiency than that calculated, it is quite conceivable that considerable damage might be done. Some results which I recently obtained on a comparatively recent disinfectant with a guaranteed coefficient of 17 will be of interest. The sample was obtained from bulk which had been supplied to a large sanitary authority. The coefficient on the freshly made emulsion was only 14, but when a 1 per cent. emulsion had been allowed to stand for 24 hours the coefficient had dropped to nine. This instance is only one of several which could be quoted, and I trust that those interested will adopt the suggestion of Dr. Rideal and Mr. Walker.—I am, Sir, yours faithfully,

T. H. LLOYD, F.C.S.,
Member of the Society of Public Analysts, &c.

Newark, Oct. 12th, 1908.

SOME DISCURSIVE REMARKS ON THE REARING OF CHILDREN IN LONDON.

(BY A SPECIAL CORRESPONDENT.)

III.[1]

INFANT CONSULTATIONS AT THE ST. MARYLEBONE DISPENSARY.—THE ST. PANCRAS SCHEME FOR THE CARE OF INFANTS.

I VISITED next, by the invitation of Dr. Eric Pritchard, the senior physician, the St. Marylebone General Dispensary at the time when the infant consultations were in progress, the dispensary having adopted a scheme analogous to the late Professor Budin's famous scheme in Paris. In February, 1906, the Health Society of the Borough of St. Marylebone, stimulated by the example of the Westminster Health Society, began to attempt to deal systematically with the infantile mortality of the borough,[2] and in doing so made a new departure, so far as England was concerned, in taking as a model Budin's "Consultations de Nourrissons." In addition to the "infant consultations" a series of lectures was inaugurated at the dispensary on infant management and a staff of health visitors were put into training whose duties were to visit the homes of the people and to instruct mothers on subjects relating to the care and management of infants. The infant consultations were intended to meet the requirements of those cases which needed the attention of a medical man, and the visitors would thus be able to assist the parents in deciding whether medical intervention was required.

Such was the scheme laid down now more than two years ago, into the working of which I went to make a few inquiries. The infant consultations are held on Mondays and Thursdays, beginning at 2 P.M., under the direction of the senior physician. I went on a Thursday afternoon and at 2 P.M. I found in a large room of the dispensary a group of women with their infants who were allowed admittance by means of "letters." The letters entitle the mothers to bring their infants to the dispensary during a period of one year, and it is understood that the infant will be brought as frequently as the medical officers consider necessary. To these consultations the visitors of the Marylebone Health Society come, in order that they may acquire experience of infants' ailments and pick up information which may prove useful to them in the performance of their duties, and render them able to give useful assistance to the medical man. The women whom I saw at the St. Marylebone Dispensary seemed, to my eye, not quite so poor as those I had seen at Chelsea and at St. Pancras, and of course were not so miserably necessitous as the women at Rotherhithe. For this reason the question of feeding them when pregnant or when suckling their offspring is not so pressing; cases may occur when it ought to be thought of, but the main work before medical men and their philanthropic coadjutors in Marylebone is educative. No expectant or nursing mothers are fed by the agency of the dispensary which, moreover, does not possess the machinery for such work. The routine at the consultations was very practical. The resident medical officer, who happened to be in charge in the absence of the senior physician, made a detailed examination of all the children with the assistance of a staff nurse. The nurse, while she chatted with the mothers respecting their infants and themselves, assisted to strip the babies and to have them in readiness for weighing and inspection by the medical officer. The weighing was carefully done and the gain or loss of weight was recorded on specially prepared forms. In the case of every infant, it may be added, who was weighed during my visit the weight had gone up. The infant was then subjected to a thorough medical examination, while a very probing set of questions were asked of the mother as to her own health and that of the child, and especially in regard to the methods of feeding adopted. Full notes of this catechism were taken on the forms, advice was given in accordance with the replies and with the results of inspection, and lastly, where it seemed needful, medicine was supplied. This usually took the form of a suitable tonic for the mother. I was greatly struck by the patience and consideration displayed by both the nurse and the medical man when attempting to help the mothers, and also by the difficulty which they often experienced in making matters clear to the mothers. Until the mothers had entirely grasped the meaning of the advice given, the lessons were delivered over and over again in the simplest language until they could hardly fail to be understood. A few of the women were of a low type mentally and physically, but the others were nothing of the sort, and the difficulty which all experienced in understanding the reasons of the course prescribed for them somewhat astonished me and would have appalled anyone not familiar with the public ignorance of the alphabet of hygiene. All the women were clearly grateful for the attention and anxious to profit by the advice; not one resented the questions asked.

Of course the point on which most stress was laid was the importance of breast-feeding, but in those cases in which artificial feeding was unavoidable the mother was advised as to how and where to obtain good milk, how to keep it, to sterilise it, to prepare it, and to administer it. Advice was also given in regard to the best pattern of feeding bottle which she is allowed, if she so desires, to purchase at the dispensary at cost price. In some instances the dispensary will sell to the mother the most fitting artificial food at cost price, but the rule is to teach the mothers how to prepare cow's milk in a safe manner. To the health visitors it is left to explain to the mothers, more in detail than is possible at the actual consultations, all the general hygiene of the rearing of children. It is they who preach the gospel of fresh air and cleanliness, who instruct the mothers in the elements of house work and wholesome cooking, and it is their efforts that we have chiefly to look to if the reproach of an excessive infantile mortality is to be done away with.

The health visitors in Marylebone are carrying on an excellent work, but it is good to know that similar efforts are being made in other districts, for they are the most essential part of the machinery with which to save infant lives. The history of the evolution and the development of the health visitor is interesting. In Manchester in 1862 the Ladies' Health Society of that city and Salford commenced to send out women to visit the poor in their homes. This seems to have been the beginning of this movement, and according to Dr. G. F. McCleary[3] the object of the society was "to popularise sanitary knowledge and to elevate the people, physically, socially, morally, and religiously. This it essayed to do by the united efforts of ladies of position and working women belonging to the class of those it endeavoured to influence." At first only leaflets and tracts were distributed, but it was found that this mode of disseminating sanitary knowledge made but little impression, and the first health missionary, a genuine working woman, was engaged to go from door to door and to help them, the poor, as opportunity offered by advice and otherwise. Of course, a woman of intelligence, tact, and force of character was chosen, but in the beginning the poor women were approached by one whom they could regard as belonging to their own class. The success achieved was wonderful, many ladies assisted in the most ungrudging manner, and in 1890 the Manchester and Salford Society, which until then had worked quite independently of the official sanitary authority, made an arrangement with the Manchester corporation whereby half of the health visitors were paid by the corporation. At first some of the visitors were drawn from the working class, in accordance with the way in which the scheme was initiated, but it was found gradually that the best results were obtained by women of good education. In its main principles the policy pursued by Manchester has been followed by all the towns which have adopted a system of health visitors or have started some form of association for voluntary assistance to the hygienic authorities. Among provincial towns, the efforts of Huddersfield to check infantile mortality are particularly well known on account of the prominence given by the lay press to the plan initiated by the ex-mayor, Mr. Alderman B. Broadbent.[4] For the past ten years Birmingham has employed 17 health visitors paid out of the borough rate. Sheffield corporation has appointed a chief female visitor with a number of salaried helpers under her, and the work

[1] Nos. I. and II. were published in THE LANCET of Sept. 26th (p. 989), and Oct. 3rd (p. 1037), 1908, respectively.
[2] THE LANCET, Dec. 8th, 1906, p. 1615.
[3] The Albany Review, April, 1907.
[4] THE LANCET, Feb. 3rd, 1906, p. 343.

hat is being done by them is very large. Of 13,000 infants born in Sheffield in 1907, 9488 were thus visited. Glasgow, Liverpool, and many other large cities are also using the services of health visitors; indeed, at the present time, of the 34 municipal corporations representing a population of over 1,000,000 only nine are without women inspectors or health visitors. The boroughs of London which employ paid health visitors or lady inspectors are as follows: Battersea, ; Bethnal Green, 1; Camberwell, 1; Chelsea, 1; Finsbury, ; Fulham, 1; Hackney, 2; Hampstead, 1; Holborn, 1; slington, 2; Kensington, 2; Lambeth, 2; Lewisham, 2; addington, 2; Poplar, 1; Marylebone, 2; St. Pancras, ; Southwark, 3; Wandsworth, 2; City of Westminster, 2; Woolwich, 2; and City of London, 2. Bermondsey, Deptford, Greenwich, Hammersmith, Shoreditch, Stepney, and Stoke Newington have no women inspectors, but Hammersmith has a health visitor. The principal functions of such workers are: 1. To advise expectant mothers on the management of their health and in regard to the influence of ante-natal conditions on their infants. 2. To follow up the notification of births and to visit the homes when the medical man and midwife have ceased to attend. 3. To note conditions of ignorant feeding or of lack of sufficient and nourishing food and to take judicious steps to correct these evils. 4. To give advice on the proper feeding of infants; to warn mothers against premature weaning; to inculcate in particular the importance of breast-feeding until the teeth appear; and, above all, to impress upon them the avoidance of the use of foul feeding bottles. 5. To promote and to encourage the practice of weighing infants regularly and to instruct or to remind mothers on points of general hygiene. 6. To instruct and to guide in their work the voluntary district visitors who assist in health visiting. 7. To note any insanitary or foul conditions in any of the homes visited and in any of the inmates of the same and to report these points to the medical officer of health under whom they work. 8. To attend at factories during the dinner hour, at mothers' meetings, and on other suitable occasions for the purpose of giving talks on the subject to which their qualifications and the objects of their appointment relate.[5] In some instances, due to difficulty in regard to salary, local authorities rely entirely on the services of voluntary health visitors. Although these as a rule bring to their work zeal and enthusiasm, they of course are wanting in the necessary knowledge, training, and experience; moreover, their services are apt to be somewhat erratic and intermittent, not marked by that regular and systematic routine which is required of trained workers. It is fully recognised that in all populous centres it is desirable to have at least one expert health visitor as superintendent. Under such a superintendent volunteers are extremely useful and if they are fond of the work quickly become conversant with the details of their duties. In fulfilling the function of health visitor the personal equation naturally counts for much. In no sphere of duty are tact and discretion of greater importance.

To turn from considering the work of health visitors in general to their particular work in a representative London district I should like to call attention to what has been achieved in the borough of St. Pancras. The medical officer of health of that borough, Dr. J. F. J. Sykes, has thoroughly organised the machinery of health visitors necessary to cope with a high infantile mortality. One lady inspector is mostly occupied with the care of infants and she is assisted by a number of ladies who act as voluntary visitors, some of whom have professional qualifications for the work. Since the autumn of 1905 there have been some 21 women, possessing no particular qualifications, working intermittently for various periods, and 14 professional women working more regularly and for longer periods; about half of the latter have obtained public appointments. It is obvious that working under the supervision of a competent lady inspector is a training of great value to those who intend to take up health visiting as a means of livelihood.

In St. Pancras the routine is as follows. As soon as a birth has been notified the mother receives an advice card, but only the poorest mothers, or those who are presumed to be so because they live in the poorest streets, are visited at once. The health visitor when she goes in fulfilment of the duties already indicated will also help the mother by means of introduction cards to private medical men who have signified their willingness to assist, to provident dispensaries, and to general and special hospitals, and in necessitous cases various religious and charitable organisations are also approached for assistance. The duties of health visitors and the work that is being done by them in the borough of St. Pancras show respectively the difficulty that there must be in finding exactly the right sort of woman and the great good that may come from her services. Visiting of infants not coming within the scope of any Act much latitude is permitted to, and exercised by, the authorities who have the right to make such appointments. The best plan would seem to be that adopted by the St. Pancras borough of employing a thoroughly competent lady sanitary inspector who visits and advises mothers and expectant mothers and who supervises and teaches a good-sized staff of voluntary workers. The Local Government Board can compel the London borough councils to appoint as many sanitary inspectors as it thinks fit, but, on the other hand, it rests with the borough councils to determine whether they will assign any part of the work to women or not, so that in all boroughs the competent lady sanitary inspector may not be forthcoming. The example of St. Pancras may here be useful, for it is reasonable to believe that, at any rate, some of the recent improvement in the mortality rate of infants is owing to the introduction of the health visitor upon a properly organised system.

The first part of the St. Pancras scheme was commenced in 1904, since which time the mortality of infants under one year of age per 1000 births has decreased as follows: 1904, 152 per 1000; 1905, 136 per 1000; 1906, 131 per 1000; and 1907, 114 per 1000. The lady inspector of St. Pancras reports that in the year 1907 the total number of births registered, the majority of which were registered within two months of birth, was 5484. Births on midwives' list, the majority of which were notified within two to four weeks of birth, 1034. Advice cards sent after, and previously to, births 6000. Number of visits paid 2934. Actual number of infants visited 1855. Additional visits to infants 1079. Extra visits paid by woman inspector to hospitals, medical men, midwives, nurses, crèches, maternity missions, almoners, relieving officers, workhouse, infirmary, employment exchange, office of distress committee, "school for mothers," Charity Organisation Society, dairy shops, druggists, &c., 249.

Dr. Sykes showed in a report on infantile mortality presented to the St. Pancras borough council in 1904, and in a further report in 1905, that mortality statistics indicated infants under one year of age to be dying in St. Pancras at increasingly younger ages, but as breast-feeding is now considerably on the increase, owing to the steps which have been taken to advise, to assist, and to feed expectant mothers, a better series of figures may be expected. Premature weaning is practised largely in all busy centres and is naturally a grave cause of ill-health in infants in London. I am reminded to make this remark because Dr. Sykes happens to be in favour of legislative measures directed at preventing mothers from going out to work until a period of six months since the birth of the child has elapsed. Failing the enactment of so drastic a measure, which he probably never expects to see on the Statute book, he suggests that infants of suckling age should not be admitted to municipal crèches and day nurseries, but that a manufacturer who elects to employ the labour of mothers with suckling infants on account of its cheapness should provide a cradle-room for the infants and afford facilities to the mothers to suckle their infants at proper intervals.

I hope that my discursive remarks will prove of interest to medical men, especially where there is a chance of organising systematic resistance to excessive infantile mortality. At the back of all such schemes there must always be one for the rehousing of the poor; but the poor can only be rehoused at the expense of an enormous burden of taxation to the community unless time is taken over the matter. And during that time infants die, and it is hard to remain philosophically certain that nothing can be done to hurry forward reforms that must come sooner or later. But the point is that even in their unfavourable environment the children will grow and thrive if they get any sort of chance, and in many cases their mothers would give them that chance if they knew how. Medical men and laymen should alike work to educate the mothers of the race.

[5] For an excellent article on the Functions of the Health Visitor, see Progress, July, 1908.

PRINT IN BINDING

THE INTERNATIONAL CONGRESS ON TUBERCULOSIS AT WASHINGTON.

(FROM OUR SPECIAL SANITARY COMMISSIONER.)

INSUFFICIENCY OF HOSPITALS FOR TUBERCULOSIS IN NEW YORK.—NOTABLE EFFORTS TO CREATE NEW HOSPITALS CHECKED BY A RAILWAY WAR.—INSANITARY DESIGNS FOR NEW HOSPITALS.

New York, Sept. 24th.

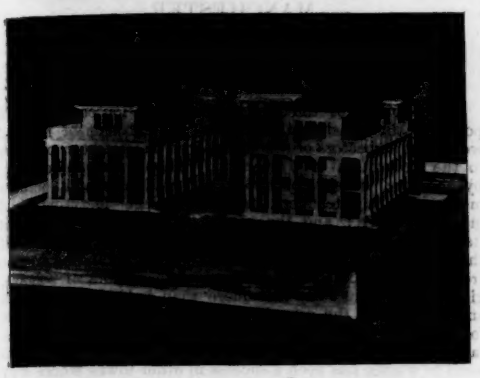
VISITORS attracted to America by the International Congress on Tuberculosis will be expected in many other places besides Washington. Now that the much belated programme has at last been published it appears that they are not only invited to visit Philadelphia, Baltimore, Boston, New York, but also Buffalo, Cleveland, Detroit, Saranac Lake, Chicago, and Pittsburg. At New York the reception has been elaborately planned and lasts from Oct. 8th to 10th, making three days in all, and a very full programme has been prepared. This visit of so many foreign authorities at this particular moment is most fortunate. Here every endeavour is complicated and often altogether defeated in consequence of some political or financial intrigue that fixes itself like a harmful parasite on schemes which in their origin were absolutely benevolent and promoted by disinterested citizens and philanthropists. This has been the case notably in regard to the efforts made to provide better accommodation for the poor who suffer from tuberculosis. But the members of the Congress who come from distant countries are naturally totally ignorant in regard to these local politics, intrigue and interests. They can therefore pronounce an opinion without being suspected of partisanship. This will make the criticism of the foreign men of science of special value. As a case in point, there is not at New York anything like sufficient accommodation in the existing hospitals. Some three and a half years ago the Association for Improving the Condition of the Poor took the initiative. It opened a hospital on the beach at Coney Island, where it obtained 15 acres of ground, in June, 1904. It had ten tents holding 50 patients. In the autumn there was a permanent building ready known as the Sea Breeze Hospital for the treatment of surgical tuberculosis in children. Already a considerable number of foreign members of the Congress have visited this establishment and have expressed great satisfaction at the results obtained. Unfortunately, this can only be considered in the light of an experiment. In this respect it has served its purpose well, for it has carried the conviction that institutions of this description must be established but on an infinitely larger scale. Only a few of the beds are free; most of the patients pay £1 12s. per week.

As there are some 4000 children requiring treatment in New York, Sea Breeze Hospital, with its 45 beds, is obviously insufficient and a sum of £50,600 was raised by subscription to build a large hospital. But to obtain land on the seashore sufficiently near to New York was not possible unless a law could be enacted giving the right of compulsory purchase. To the honour and credit of all engaged in the anti-tuberculosis campaign, be it said, public opinion has been so well educated on this subject that such a law was enacted. A very open site known as Rockaway Beach was selected. It is a point of land or a peninsula jutting out into the sea from Long Island. It is swept by sea winds from all sides except the north-east. It has a 7000 feet frontage on the open sea, where children can play on the beach. The Association for Improving the Condition of the Poor offered the city the 253,000 dollars which it had raised if the city obtained compulsory powers to purchase this site. As these powers were obtained it might be thought that the hospital would now at least be in course of construction. But this would be judging without knowledge of local politics and finance. No sooner was this matter, as it were, definitely settled than another agitation was started. A year ago it was decided to purchase 450 acres at Rockaway Beach, so that there might be land enough, not only for a hospital for the surgical treatment of tuberculosis other than pulmonary tuberculosis, but also for a variety of institutions and notably for convalescent homes that are much needed. But people who had land elsewhere began to urge that there were other better sites, notably at Longbeach, though this was 26 miles away from New York, while the distance to Rockaway is only 12 miles. This agitation has not only caused a long delay but has given time for the value of land at Rockaway to increase and for another and much more serious obstacle to arise.

Both at New York and Brooklyn the means of local transit, such as overhead railways, tube railways, trolley-cars, &c., were started by numerous small companies. In the course of time, however, these small companies were swallowed up and now practically there remain but two companies, one on the Brooklyn and the other on the New York side. If the Longbeach scheme for the new hospitals had been adopted there would have been no increase of traffic through Brooklyn, so it was opposed by the railway people of that side. On both sides of the water the transit companies are in difficulties, though they have innumerable passengers and a magnificent business; only they are handicapped by the sums which they had to pay in buying out the smaller companies. Thus on the Brooklyn side the rolling-stock is but rarely renewed, the brakes sometimes fail to act, and numerous accidents occur. Quite recently a tunnel has been built under the water, so that the New York subway system comes up into the centre of Brooklyn and there lands its passengers. This does no harm but, on the contrary, helps to feed the Brooklyn lines, and so far schemes for better hospitals could be prepared without having to study railway politics. Now, however, it is proposed to continue the New York system for a considerable distance on the other side of the water which separates Brooklyn from New York. Thus the Brooklyn system of transit, instead of being fed by the New York system, would in a great measure be destroyed by the latter. The feeling of the general public is strongly in favour of the facilities that would result from building more lines and because they would be able to travel on both sides of the water in the same train and on the same system of rails. Consequently the scheme was accepted. All the necessary legal sanctions were obtained when a means of thwarting this and every other scheme was discovered. An old law was disinterred by which a municipality was forbidden to borrow more than the equal of 10 per cent. of its revenue. Armed with this weapon it is easy to see that New York could be proved to have already extended its borrowing capacity and therefore must only spend money on objects of absolute necessity and must abandon all idea of any sort of improvement. Thus, and to prevent the New York system of transit competing with the Brooklyn system, the magnificent site at Rockaway must not be purchased, the hospital must not be built, and the thousands of children whose lives might be saved are destined to die.

It will be said, however, that this is but a momentary check; that, though a year or two may be lost, the scheme will ultimately be carried through and the hospital built. It is to be ardently hoped that this will be the case, though the difficulties will not yet be over. The good work may still be defeated by the neglect of the laws of modern sanitation in the buildings of the hospitals. It seems incredible and yet is a fact that the necessity of illuminating the hospital wards with direct rays of sunlight is not acknowledged. It is proposed to build wards, surgical wards, where the light is kept away from the windows on all three sides by broad verandahs. It is only on the uppermost of the three floors that there will be the necessary supply of light. The accompanying illustration of the design sets this forth at a glance. The new tuberculosis hospital which it is proposed to build on Blackwell's Island for the treatment of pulmonary tuberculosis will have the same defect. Here there will be long pavilions four storeys high. The wards will hold a double row of beds and will measure 26 feet in width. But outside, on both sides and going the whole length of the building, there will be a balcony or verandah ten feet wide and 13 feet high. How can wards of such construction be purified by the direct rays of light? It is said that the patients will spend their time on the balconies and the beds will be wheeled out from the wards. In that case it would be better to do away with the wards altogether. Why have wards in which it would be imprudent to allow patients to remain for any length of time? In the ignorance of hygiene the question of architectural design has been allowed to predominate. In these circumstances it would be

well to repeat in New York the comparative experiments on the survival of bacteria placed within those parts of a dwelling that are some fully and others not fully illuminated by direct rays of sunlight. It is an ill wind that blows no good, and the delay caused by the railway company warfare described above may serve to provide the time



From a model of the proposed Seaside Hospital for Tuberculous Children, which is to be built at Rockaway Beach. The lighting of the two lower floors is obstructed by the verandah.

necessary to alter radically the plans of the new hospitals. If the general appearance can be made artistic and pleasant this will be a great advantage, but first and foremost and of far greater importance the sanitary conditions have to be considered. A necessity even for the healthy, but still more so for the sick, is the unimpeded blaze of light shining down into the bedroom or dormitory and rendering all germ-life that depends on shade or darkness an impossibility.

REPORT OF THE HEALTH OF BELFAST FOR THE YEAR 1907.

(FROM A CORRESPONDENT.)

FROM the report of the medical superintendent officer of health of the city of Belfast for 1907, which has just been issued, it appears that the death-rate was 21·3, which is an increase of 1·3 per 1000 (due to the epidemic of cerebro-spinal fever), the birth-rate was 30·3, the infantile mortality was 135 per 1000 births, the zymotic death-rate (from the principal zymotic diseases) was 1·7 per 1000, and the phthisis mortality was 2·5 per 1000. Mr. H. W. Bailie, the medical officer of health, thinks the population, estimated as 370,163 for 1907 by the Irish Registrar-General, is "quite too low," but supplies us with no satisfactory evidence to support his view. Mr. Bailie gives among the causes affecting the death-rate of Belfast its geographical position, the excessive humidity of the atmosphere, the variable nature of the climate, frequent sudden changes of temperature, differences between temperature of work-places and of the external air, the nature of certain industries (such as the flax-mills), conditions of employment, and immigration into the city. These conclusions may be disputed, for like conditions of dampness of the soil, moistness of the atmosphere, and the presence of industries, all occur in other places (e.g., Glasgow, Bolton, and Cardiff) with a falling death-rate and especially with a falling phthisis death-rate, and the immigration into Belfast is no more excessive than is the case in many other large cities. Mr. Bailie does not mention another cause for the high death-rate of Belfast—namely, the insanitary condition of some of its houses—and he could have cited plenty of proof of this from the report of the recent Health Commission. It appears wrong in principle to combine under the head chest affections as influenced by "some common cause or causes" such diverse entities as pneumonia, which is really a specific fever, phthisis, and 1137 cases labelled "diseases of the respiratory system" (exclusive of pneumonia). What are these 1137 cases, and how many of them are in truth phthisis? are questions which should be answered in the next annual report. Since the year 1888 there have always been at least 1000 deaths to 1880 each year from diseases of the respiratory organs, and it was only in 1905 that pneumonia was excluded, but there is still room for much greater differentiation. Tuberculosis caused in all 1395 deaths (phthisis 926 and other forms 469) in Belfast in 1907, and therefore with the exception of infantile mortality, which comprises the 1523 deaths of children under one year of age, tuberculosis is the cause of the greatest number of deaths.

With reference to enteric fever there were 82 deaths out of 356 cases notified, which gives the excessive percentage mortality of 23; if, however, the 270 notified cases of simple continued fever, with but two deaths, be added (and the vast majority of cases of continued fever are enteric fever), a total of 626 cases with 84 deaths is obtained, and this gives a percentage mortality of 13, which is much nearer the usual death-rate of enteric fever.

Mr. Bailie speaks of the difficulty of getting parents and friends to allow infectious cases to be sent to hospital and he hopes for the assistance and advice of the medical profession in helping him in this matter. He might have added that when the Ulster Medical Society sent a deputation to the corporation objecting to the situation of the new municipal fever hospital at Purdysburn owing to its distance from the city their views, as usual, were scouted and now not more than 50 per cent. of the cases of infectious disease in Belfast are treated in hospital, a fact which confirms the views of the medical profession. Turning to puerperal fever there were 29 cases notified, with seven deaths, and in 14 of these no medical man had been in attendance until puerperal fever had set in. "In every case notified inquiries are made and disinfection carried out, instructions are given for the necessary precautions to be observed, the homes of the midwives are also visited and they and their clothing disinfected, and they are prohibited attending maternity cases for at least 14 days." No information is given as to who these "midwives" are; if they are "handywomen" all the disinfection in the world will be of no use until they are educated how at a confinement they should keep themselves and their patients surgically clean. Recent revelations at inquests in Belfast have indicated a deplorable state of affairs owing to these "handywomen" who, in the interests of public health, should be more strictly looked after by the authorities.

The part of the report to which everyone interested in the science of medicine and public health will naturally turn is that dealing with cerebro-spinal fever, of which there were 623 cases notified, with 493 deaths. Excellent details are given as to the age and sex incidence, the occupation or social position, the duration of illness, and the numbers dying in the various registrar's districts, but beyond the question of its infectiousness none of the debateable problems of cerebro-spinal fever are dealt with, in spite of the good work which has emanated from the Belfast School of Medicine, which has advanced enormously our knowledge of the disease.

Is cerebro-spinal fever infectious? Mr. Bailie says (p. 66): "After our experience during the past year, little doubt is left on my mind as to its contagious or infectious nature." He bases his belief on cases which he quotes as well as on the large number of houses in which multiple cases have occurred, taking also into consideration the fact that when the disease has occurred in any district a number of cases have been certain to follow immediately after and that in a large number direct contact has been traced. He says, further, without however giving any proof, that it appears to him a large majority of the population may be considered immune to this disease, but that there is still a certain proportion which may be susceptible. In this connexion it is interesting to note the opinion of others in Belfast who are well able from personal experience to speak on this question. In a paper, "Some Observations on the Recent Outbreak of Cerebro-spinal Fever in Belfast," read at the Exeter meeting of the British Medical Association,[1] Dr. A. G. Robb, visiting physician to the Belfast City Fever Hospital and to the Belfast Union Fever Hospital, says,

[1] Brit. Med. Jour., Oct. 26th, 1907.

"After consideration of all the available facts I am of opinion that our cases do not afford any evidence of direct infection from contact," and subsequent experience has only confirmed him in this view. He points out that in most of the cases where a second patient was admitted from the same house after an interval of time, that interval was such as to preclude the possibility of direct infection. He points out that in one reformatory two boys were taken ill on the same day, a third case being admitted five weeks later. In the Union Fever Hospital (as pointed out by Dr. Robb) it is the practice when a breast-fed child is admitted to admit also the healthy mother if she so wishes. "We have had three such cases; the mothers nursed these cases, one for seven weeks, when the child died; another for six weeks, when her child died; the third for ten weeks. This child recovered. (The meningococcus was found in all three of these cases.) The mothers all remained healthy. Again, two mothers were admitted with severe attacks, each on the second day of illness; both had children on the breast until the time of admission, and the children remained healthy." No member of the staff at either fever hospital contracted the disease and no relative of any of the nurses employed in the nursing of these cases has been attacked, though the great majority of these nurses being local naturally visit their friends when off duty. One of the earliest of the fatal cases was a young medical student who was sent to the Royal Victoria Hospital, yet how he contracted the disease was a mystery, and none of the staff, or of the nurses, or of the students at that clinical school took the disease. Further, no visitors to the fever hospitals took the disease themselves, nor did they convey it to others. No reference is made in this report to the very original work done in Queen's College Laboratory by Professor W. St.C. Symmers, Dr. W. J. Wilson, Dr. T. Houston, and Dr. J. C. Rankin. I may draw attention to one admirable piece of research work on "The Opsonic and Agglutinative Power of Blood Serum in Cerebro-spinal Fever" by Dr. Houston and Dr. Rankin,[2] in which is shown the value of the application of the opsonic index method and of the agglutination power of the serum in cerebro-spinal fever. Dr. Robb, in his paper already quoted, says, speaking of the value of Houston and Rankin's method in diagnosis, "After the sixth day of the disease this method affords a more reliable confirmatory test than lumbar puncture." Nothing is said in the report as to the relationship of epidemic cerebro-spinal fever to cases of posterior basic meningitis. Now, up to this epidemic in Belfast these two sets of cases were thought to be the same, the one sporadic, the other epidemic, but in Dr. Houston and Dr. Rankin's paper these observers show that bacteriologically, in its opsonic and agglutinative reactions, the coccus which produces posterior basic meningitis, or Still's disease, is quite different from the true meningococcus of cerebro-spinal fever. Further, those who had previously seen such cases of Still's disease and recognised them as the entities pointed out at the Hospital for Sick Children, Great Ormond-street, by Sir Thomas Barlow and Dr. S. J. Gee noticed that even clinically they differed from the cases of the epidemic cerebro-spinal fever which raged in Belfast.

Finally, looking at the question of the treatment, not a word is said in this report of the fact that up to the use of Flexner and Jobling's serum no treatment (sera or ordinary medicine) was of any use, for out of the first 275 cases the mortality was 72 per cent. Then came the use of the American serum (from the Rockefeller Institute), when out of 90 cases the mortality was only 30 per cent., while at the same time in those in which the serum was not used the death-rate kept as high as ever. An admirable paper by Flexner and Jobling on "An Analysis of Four Hundred Cases of Epidemic Meningitis treated with the Anti-meningitis Serum," appears in the *Journal of Experimental Medicine*, Sept. 5th, 1908, published for the Rockefeller Institute for Medical Research, New York, Vol. X., No. 5. Many will think that the report would have been improved if some of the facts brought to light by workers in the Belfast School of Medicine, who have done so much to advance our knowledge of a serious disease, had been incorporated in it. The report is much fuller than former ones; it is well printed but it is sadly weakened by the fact that, as stated on p. 8, "all the efforts made by the public health committee and myself to obtain weekly notifications of all deaths with their causes, ages, and sex, have ended in failure." In other words, How can any medical officer of health attempt any health reforms unless he has full and trustworthy vital statistics?

[2] Ibid., Nov. 16th, 1907.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Medical Work in Schools.

THE decision of the Manchester education committee to postpone the consideration of the appointment of medical women as inspectors of school children has not been pleasing to the Federation of University Women. This federation, by the way, consists of a body of graduates and includes mothers, acting teachers, training college lecturers, and medical women; and the committee of the federation at its last meeting passed a resolution expressing regret at the action of the education committee in excluding women from these appointments of medical inspectors of schools, giving as reasons: (1) that more than half of the children and teachers in the schools are girls and women and therefore "a woman doctor could act with more freedom and satisfaction to all concerned than a man"; (2) that the appointment of women has been a success in other towns where they have successfully organised their own departments; and (3) that with candidates of equal standing there seems no reason "for artificially restricting the appointments to one sex." Although there may be something of the "what is a mere man" idea about the resolution, there is no doubt some ground for the contention that the women are well fitted for the inspection of the girls' schools. The special argument set forth at the discussion of the question at the education committee against the appointment of women doctors was that there was much administrative work to be done, districts had to be arranged, and so on, and "there would be undoubtedly some inconvenience in practical matters if one of the first officers appointed was a lady doctor." It is clear, however, that the federation committee does not accept this as a good reason and feels that women are as good organisers as men.

Adulteration and Insanitation.

There has during the past year been some increase in Manchester in the adulteration of food. This is due, it appears, to the sale of "butter substitutes" for butter, which is so profitable to the dishonest tradesman that he risks the chance of the fines which he may have to pay. It is said that it will be difficult to suppress it "till the justices deal more severely" with these cases. Last year 2680 insanitary dwellings were certified to the sanitary committee. Of these 2555 were ordered to be closed, but the owners of 2275 undertook the alterations needed to bring them up to the necessary requirements of the committee, so that only 280 were closed. As the town grows it is easy to see the short period that must elapse before new neighbourhoods will become insanitary slums.

Black Smoke.

Alderman Fildes, the chairman of the Manchester Sanitary Committee, states that in the year ended April 30th last 238 cases were reported on account of the emission of black smoke from business premises. 206 of these were referred to the justices and the 32 remaining were cautioned. But black smoke does not all come from mills and works, for many complaints have been made of the smoke sent out by railway locomotives and by the steam locomotives that are specially offensive to those who use our high roads or country lanes. In several cases it has been necessary to prosecute the evil-doers. One of the principal railway companies in the country appears to use the cheapest, dirtiest coal and the most prodigal evolver of foul-smelling smoke, and the writer has frequently had to complain of the nuisance.

Anthrax Germs.

The bacteriologist to the Anthrax Investigation Board in Bradford (Dr. F. W. Eurich) has been testing various methods of washing and disinfecting blood-stained wool or hair. The results are given in a recent report and show that wool and hair are especially dangerous when stained with blood, that blood is the chief carrier of the anthrax germs, and that dust may be dangerous by virtue of the

brittle scales of dried blood which they may contain derived from blood-stained material.

Analyst's Neglected Advice.

From Dewsbury comes another illustration of the way in which lead poisoning takes place. It was shown at an inquest last week that a woman's death was due to lead poisoning from using the drinking water of the district, and it was said that during the last three years a considerable number of similar cases had been treated in the infirmary. The woman's husband was a lead burner and the inquiry was held in part to ascertain if lead from his clothing could have poisoned his wife. Dr. E. H. Scholefield of Ravensthorpe said that he found traces of lead in solution in the water supplied by the Dewsbury corporation to the man's house, and in reply to the town clerk said he did not think that lead from the husband's clothing was responsible for the poisoning. Mr. F. Richardson, the West Riding analyst and analyst to the Bradford corporation, said that he had been analyst for several years to the corporation of Dewsbury. He analysed samples of the town's water in 1903, but none had been sent to him since 1905 when he reported that the water acted on lead. He had reported in 1903 "that the water dissolved lead from service piping to a dangerous extent," and suggested, without result, that the water should be hardened with lime. Every effort seems to have been made at the inquest to absolve the town's water and to throw the blame on something else, for it was suggested that the poisoning was possibly due to lead in tinned meats, but the husband said "that he and his wife had had no such food since the Chicago scandal." Mr. R. Herley of the Dewsbury Infirmary said that in his opinion the death was due to lead poisoning caused by drinking water from the lead pipe supplying the house, and said that since he became house surgeon in 1905 about 30 cases had occurred in Dewsbury and the neighbourhood, the particulars of which were forwarded to the Local Government Board. The town clerk was surprised at these statements and said that the water-supply "was known to be one of the purest chemically and bacterially." But it is well known that this very pure water acts most readily on lead, and one cannot understand how the corporation could neglect the analyst's warning, except on the principle sometimes adopted by such bodies that if a danger threatens the town it must be hidden and hushed up, lest the reputation of the place should suffer. The verdict was: "Died from lead poisoning caused by drinking water from the house-tap supplied through a lead pipe." This is a plain, straightforward verdict, but a suggestion was added that the Dewsbury corporation should in future have samples of water frequently tested.

City Lodging-houses.

On Oct. 19th an inquiry was held by the Local Government Board as to the borrowing of £13,000 for a municipal lodging-house for women. It is proposed to spend £11,000 on the building and £2000 on the furnishing. There are to be three floors with 75 cubicles on each. These are to be partitioned with solid material high enough to insure privacy, and with wire mesh carried up to the ceiling. The reason for the higher cost of this undertaking as compared with that of a similar institution at Glasgow was that in the latter case the site was not so central nor the accommodation as sanitary. In Glasgow one cubicle lay over another, but in Manchester each cubicle will be distinctly separate, thereby allowing a clear air passage. During the inquiry some remarkable facts came out as to the condition of some, at any rate, of the Manchester lodging-houses. Mrs. Clark, organising secretary of the Women's Guardian and Local Government Board Association, gave evidence as to her inspection of, and visits to, various lodging-houses in Manchester up to midnight and between 12 and 3 A.M. She said that the conditions were horrible: the atmosphere was most foul, there was absolutely no privacy, and it was quite impossible that any decent respectable women could find accommodation in any of the houses visited. She said: "I know three women, two old and one young, who have been sleeping on a bed of manure for its warmth rather than go into one of the lodging-houses." This is a state of things sufficient, surely, to justify the corporation in trying what can be done towards its remedy. But are there not powers already existing that might have been used for sweeping out these Augean stables?

Oct. 13th.

NEWCASTLE-UPON-TYNE.

(FROM OUR OWN CORRESPONDENT.)

The University of Durham Act, 1908.

THE first meeting of the Commissioners appointed under this Act was held in London at the residence of the chairman, the Duke of Northumberland, on Sept. 30th. The principal of Armstrong College, Newcastle-upon-Tyne, Sir Isambard Owen, acted, temporarily, as secretary to the Commissioners. It will be remembered that this is an Act to make further provision with respect to the University of Durham and, in effect, provides for the appointment of eight Commissioners, under the chairmanship of the Duke of Northumberland, whose duties shall be to consider the scheme for the reconstitution of the University as set out in the schedule to the Act, the underlying principle of which is the transference of the government of the University, at present vested in the ecclesiastical authority, the Dean and Chapter of Durham, to the Senate, which, for the purpose, is to be reconstituted and its powers and duties widely extended. The Commissioners are empowered to make statutes with regard to the constitution of the University and the disposition of its existing property in general accordance with the schedule appended to the Act, subject to any modifications of detail which may seem to them to be desirable in the interests of the future welfare of the University.

It is universally admitted by all who are familiar with the conditions that a reconstitution of the University on the lines laid down in the Act under review is very necessary, so much so that the draft of the Bill was unanimously approved by the various parties interested and was submitted to Parliament as an unopposed Bill at the end of last session. But while the spirit of the Act is approved a great deal of controversy has taken place on matters of detail and chiefly on the subject of the proposed constitution of the new Senate. The College of Medicine, while approving in general the terms of the Bill, reserved to itself the right to make representations to the Commissioners on the point referred to. As regards the position of the College of Medicine, the controversy has centred round the amount of representation to be given to it and to Armstrong College respectively. The Senate as at present constituted consists of 17 members, two of whom are representatives of the College of Medicine and two representatives of Armstrong College. The new Senate is to consist of 39 persons (two additional representatives of Convocation were added as the Bill passed through the House), and the College of Medicine is to have four representatives while Armstrong College is to have eight; both will have, in addition, from their graduates and past students, two Convocation representatives. This, as far as the College of Medicine is concerned, is the whole crux of the matter—namely, that on the new Senate the College of Medicine will be completely overshadowed by Armstrong College.

Now although it would be a very unpleasant position for the College to face it must be admitted that the College of Medicine can hardly claim a material share in the future government of the University so long as its constitution remains as it is at present. But the ground upon which the College raises an apparently sound objection is the provision set out in the latter part of Section 4 of the schedule: "Provided that if at any time the constitution of the aforesaid College of Medicine be so amended that its governing body shall consist wholly or partially of persons other than practitioners of medicine or surgery or teachers engaged in teaching in the College, then two of the four persons to be appointed by the College as aforesaid shall be appointed by the governing body and the other two by the principal academic board or other such academic authority existing in the College." In other words, if the College of Medicine does away with its "membership" (the objections to which have already been explained in these columns) and reconstitutes its governing body on the lines suggested in the above quoted clause of the schedule to the Act, then it is still to have no larger representation on the new Senate than that awarded to it under its present constitution. This does not seem to be equitable. No valid objection could have been raised had the Act provided that so long as the governing body of the College of Medicine remained as at present constituted its representation should be one-half that of Armstrong College, but that if reconstituted the representation of the two colleges on the Senate should be equalised.

One could even go further and hold that there would have been no injustice done to the College of Medicine if it had been made a condition precedent to its forming part of the newly constituted University that its own constitution should have been satisfactorily remodelled, but that, once remodelled, its representation on the Senate should have been the same as that of its sister college. It is to be hoped that the Commissioners will have it brought prominently before them that there is a very large body of opinion, both within and outside the College, in favour of the reconstitution of its governing body, and that even at the present moment the question is under discussion among those who have the power to move in the matter. But while there is at the moment this unsatisfactory feature, it would seem unjust that the College should have to suffer in the future through the inertia of some of its present members. If the provisions of the schedule as they now stand become an Act of Parliament (and the Commissioners are invited to recommend that they should so become) it will be impossible to get the representation altered except by means of another Act of Parliament, for Section 6 of the Act states: "After the expiration of the powers of the Commissioners, Senate of the University shall have power to make statutes for altering or supplementing any of the statutes made by the Commissioners. ..... Provided as follows:" (Subsection 3) "No statute made under this section shall alter the equality of representation in Senate of the Durham and the Newcastle divisions of the University. ....."

A clause admittedly exists in the schedule providing for equal representation if the College of Medicine and Armstrong College unite. "If at any time the said College of Medicine and Armstrong College should unite to form a single institution, then the council or other principal managing authority of the united institution shall appoint six members of Senate and the professors of the united institution other six, of whom two, at least, shall be professors in the Faculty of Medicine" (Section 4). But the union of the Colleges raises a subject which involves many matters requiring the most careful and prolonged consideration and, after all, the union of the Colleges would be merely for convenience and is in no way vital to either, and further, the prevailing feeling is that no material benefit will accrue to either institution from such a union and on that ground the idea is rather discouraged than favoured.

The contention raised above that the College of Medicine should have equal representation with Armstrong College provided that the former takes steps immediately to change the constitution of its governing body seems to be a reasonable proposition to put before the Commissioners, and if it be put before them it will most certainly receive their close consideration, but a request for further representation so long as the constitution remains unchanged would be, in view of the feeling existing on the subject, in all likelihood rejected. Whatever be done and whatever be the views put before the Commissioners it is quite certain that so far as they are able within the terms of their reference they will see that justice is done to all parties. The College of Medicine has undoubtedly itself to blame in part for the position in which it finds itself at the present moment. The matter had been regularly under discussion at the meetings of a committee of the Senate for nearly two years before the Bill was introduced into Parliament, and it was open to the representatives of the College on the Senate, and in fact their duty, to urge the claims of the College and to see that adequate representation on the proposed new governing body was allotted to the College. And it was further their duty if they found that their views were not being given effect to, to report the matter to the governing body of the College in order that they might be supported in their contentions if these were found on examination to be sound. The College requires a little more firmness to be exhibited on the part of its senior members. All other persons and bodies concerned have been able to secure what they consider to be due to them, even though this entailed alterations in the Bill at the very last moment, as, for instance, by the addition of two more convocation representatives to the Senate, three more convocation representatives on the council of the Durham Colleges, and the abolition of *ad eundem* degrees, and there is no reason why the College of Medicine should not have received the same consideration for the claims advanced on its behalf. It is to be hoped that the College authorities will see their position and will realise the trend of public opinion. If they approach the Commissioners with their constitution unaltered or with no immediate promise to amend it, it is highly improbable that their request for further representation will be considered.

One other small matter. It is reported that Sir Isambard Owen is acting temporarily as secretary to the Commissioners. No doubt the Duke of Northumberland had very good reason to ask Sir Isambard Owen to occupy that position at the first meeting of the Commission, and in all probability it was merely a formal meeting to discuss convenient times and places of meeting, &c., and at which no business was taken. But the fact as reported has caused a good deal of surprise. To avoid any friction it is to be hoped that the chairman will select as secretary some suitable person who is absolutely unconnected with any section of the University and who is therefore in an absolutely impartial position. As a matter of fact, there is no doubt at all but that some such person will be appointed as secretary.

Oct. 12th.

LEEDS.

(FROM OUR OWN CORRESPONDENT.)

Opening of the C. S. Weatherill Ward at the General Infirmary.

IT will be remembered that a very quiet and unassuming citizen of Leeds, Mr. C. S. Weatherill, left a very large sum of money to the General Infirmary. After the deduction of legacy duty and other expenses the infirmary came in for the handsome amount of £124,078. The three conditions of the will so far as the expenditure of the money was concerned were as follows: (1) The founding and sufficiently equipping and endowing of a ward to be called the "C. S. Weatherill Accident Ward"; (2) the erection in such ward of a white marble monument of Mr. Weatherill with a suitable inscription; and (3) the employment of the surplus of such moneys for the general surgical purposes of the infirmary. It was resolved to appropriate No. 3 Ward, one of the largest wards in the infirmary and accommodating 32 patients, for the special purpose of the bequest. This ward with its annexes has been completely refurnished and equipped on the most modern lines and everything has been done to make it worthy of the great benevolence of its founder. The execution of the monument, which takes the form of a marble bust, was intrusted to Mr. Thomas Brock, whose statue of the Black Prince in the city square is so much admired, and he has succeeded in producing a work of art which is dignified and pleasing in the extreme. The ceremony of opening the new ward was carried out on Thursday, Oct. 8th. After a short prayer by the vicar of Leeds, Dr. Bickersteth, Mr. Charles Lupton invited the Lord Mayor, Sir Wilfred L. Hepton, to declare the ward open. This was done by the Lord Mayor in a speech which showed his deep interest in all that concerned the infirmary and in which he paid a warm tribute to the board of management and the honorary staff. Mr. Lupton then presented a book of views of the infirmary to the Lord Mayor, to whom, on the motion of Lord Faber, seconded by Mr. Rowland Barran, M.P., a hearty vote of thanks was accorded. It is well that, while rejoicing in this princely legacy to the infirmary, the supporters of the institution should not in any way lose sight of the necessity for increasing diligence in securing financial support for carrying on the work of this the only general hospital in Leeds and the largest in Yorkshire. As is well known, the amount of work done within its walls is immense and patients come to it not only from all over Yorkshire but in many cases from beyond the boundaries of the county. Large as Mr. Weatherill's bequest is, the work of the infirmary and the two semi-convalescent hospitals, containing in all 483 beds always in working order, still requires voluntary help to the amount of £27,000 annually in addition to the sum which it receives from its investments. It has for years been a matter of the greatest anxiety to the board of management, and especially to the treasurer, that the subscription list is not, as it should be, much larger. For some years the expenditure has exceeded the income by no less than £7000 and that sum has had to be annually expended from capital. The provision of more extended accommodation for operations is being urgently pressed by the surgeons, the expenses

of the department of clinical pathology must increase if that most valuable and necessary department is not to be cramped and limited in its usefulness, and there are many improvements which should be carried out, such as an extension of the limited electric lighting of the infirmary to the whole of the institution. The annual income from the bequest will amount to £3852 and the cost of maintaining the C. S. Weatherill Ward with its 32 beds cannot be less than £2400 per annum. It is hoped that other wealthy citizens or former citizens of Leeds will consider whether any altar more worthy of their offering or any monument more lasting could be thought of than the endowment of a ward or other department of the General Infirmary.

Oct. 13th.

WALES AND WESTERN COUNTIES NOTES

(FROM OUR OWN CORRESPONDENTS.)

Herefordshire County Council: Appointment of County Medical Officer of Health and School Medical Officer.

AT a meeting of the Herefordshire county council held on Oct. 10th it was stated that a committee of the council had not been able to come to an agreement with Mr. Herbert Jones, who was elected county medical officer of health and school medical officer on August 29th, as to the terms under which he should hold the appointment. The principal point of difference is the stipulation by the county council that all qualified medical assistance required should be provided, not as is invariably the case elsewhere by the council, but by the medical officer of health. The council decided again to advertise the appointment upon the same terms, in spite of the warnings of several members that no medical practitioner of standing would be found to accept the post under the proposed conditions.

The Medical Inspection of School Children.

At a meeting of the Gloucestershire education committee held on Sept. 26th it was decided to appoint a lady medical inspector who should devote the whole of her time to the duties of office at a salary of £250 per annum, increasing by annual increments of £10 to £300, and also another medical inspector who would be allowed private practice, at a salary of £125 per annum, increasing by £5 yearly until £150 was reached. It was also determined to appoint a trained nurse at £75 per annum, rising to £80, with uniform. At a meeting of the Devon education committee held on Oct. 1st it was reported that there were 65 applicants for the three appointments of medical inspectors of schools for the county. 11 of the candidates were medical women. The committee eventually selected seven of the candidates and these will be interviewed on Nov. 5th, when the appointment will be made. In Plymouth the education committee recently wrote to the Board of Education suggesting that a grant should be made from the Exchequer towards the cost of the medical inspection of school children, and at a meeting of the education committee held on Sept. 30th a letter was read from the Board of Education stating that it was not proposed to make any grant at the present time.

The Water-supply of Wotton-under-Edge.

A Local Government Board inquiry was held at Wotton-under-Edge (Gloucestershire) on Oct. 1st into the application of the Dursley rural district council to borrow £2700 for the purposes of water-supply for the town of Wotton-under-Edge.

Oct. 13th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Opening of the Royal Medical Society, Edinburgh.

THE 172nd session of this society was opened on Oct. 9th by an inaugural address delivered by Sir Thomas F. Chavasse of Birmingham. The lecturer is a graduate of the University of Edinburgh and in his student days sat under and clerked under Lord Lister who was then in the chair of clinical surgery in Edinburgh. It was but natural, therefore, that the address should be a comparison of the antiseptic method of his student days with the aseptic system which surgeons adopt now. There was a good attendance and the lecturer was accorded a vote of thanks on the motion of Mr. H. Alexis Thomson.

A New Medical Practitioners' Association in Edinburgh.

The medical practitioners in Edinburgh and Leith have completed their scheme for a new Practitioners' Association. The object of the association is "to promote the interests of the medical profession and serve as a medium of friendly communication between members." It is proposed to have quarterly meetings and at the first of these, on Oct. 30th, there is to be a discussion on the Relationship between the Public Health Authority and the General Practitioner in regard to the Treatment of Infectious Diseases. A novel point in the arrangements is that the members at one meeting are to name the subject for discussion at the next meeting. The subscription is 5*s.* and there is to be an annual dinner. All endeavours on the part of practitioners for the furtherance of the interests of medicine are, of course, most praiseworthy, and from that standpoint the new association will be wished success. At the same time its initiation has to be regarded as an indication that existing medical associations and societies do not meet the aspirations of the general practitioners in Edinburgh and Leith. It will certainly be interesting to note what it does and how it does whatever it may do. It is evidently not to be a competitor with the scientific societies; but as a channel through which the general practitioners' views and aspirations may find expression it may be of much value and may aid in the furtherance of the public good, which, after all, is the aim of the medical profession in a very special measure.

Sudden Death of a Fife Medical Man.

Dr. Alexander B. Spence, medical officer of the parish of Kinghorn and son of Dr. R. Spence of Burntisland, died suddenly on Oct. 8th at his residence, Orchard Bank, Kinghorn. Dr. Spence was only 27 years of age and on the day before his death seemed to be in his usual health. He was chairman of the Kinghorn school board.

Oct. 10th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Proposed Amalgamation of Dublin Unions.

A PROPOSAL for the amalgamation of the North and South Dublin Unions has been under the consideration of the guardians of those institutions and of the citizens generally ever since the issue in the autumn of 1906 of the report of the Viceregal Commission on Poor-law Reform in Ireland. No effective steps have, however, been hitherto taken in the matter. The subject was brought before the guardians of the South Dublin Union last week. A deputation of the North Dublin guardians attended and a motion was submitted that a joint committee be formed, composed of six members of each board, for the purpose of considering the points which would tend to bring about the amalgamation. This was defeated by 15 votes to 12, an amendment being carried: "That, pending the Government's dealing with the report of the Viceregal Commission on Poor-law, no action be taken." The matter will not, however, be allowed to rest. The guardians of the North Dublin union have declared unanimously in favour of amalgamation and the proposal has also received the approval of the Dublin corporation. A letter received from the Local Government Board last year (dated July 30th, 1907) stated that "if the guardians of the two Dublin unions decide in favour of amalgamation the proposal could be carried into effect without further legislation." At present the two unions cost, in round numbers, £180,000 per annum. Of this sum it has been calculated that £30,000 are spent in salaries and wages and the number of requisite recipients would be greatly diminished by amalgamation. After amalgamation a united district hospital could be formed in one of the existing union hospitals into which a patient could be received without the stigma of pauperism.

The Recorder of Dublin on the Housing Problem.

The Recorder of Dublin took the opportunity in his address to the grand jury at the opening of the sessions last week to call attention to the question of the housing of the working-classes of our Irish metropolis. In the course of his remarks

he said, "To the slums in our midst is, in my humble judgment, directly traceable the great prevalence of tubercular disease and to the same source the drink evil, which is a fruitful source of the great bulk of our crimes. It cannot be even hoped that an environment of squalid filth and noisesomeness, which in an ancient city such as ours is an evil and ever increasing heritage, could produce sober, healthy, or honest citizens. One can well understand the despair of the wretched and hopeless poor who are left in their sunless lairs to fester and rot." I have seldom seen so much sanitary, pathological, and psychological truth compressed into a couple of sentences as in this reference of the Recorder to a question which he has had such exceptional opportunities of studying.

Charity Sermon in Aid of the National Lying-in Hospital, Holles-street, Dublin.

One of the special events of the opening month of the new medical year was the powerful appeal made on Sunday by the Very Rev. Canon Fricker on behalf of the National Lying-in Hospital, Holles-street. The preacher eloquently impressed upon his audience the invaluable nature of the services rendered to humanity by the nuns and the medical men attached to our Dublin institutions. The self-sacrifice to which our citizens owe this great work for their poor and suffering is nowhere more prominent than it is in Holles-street. During the past year over 1000 patients were received into the hospital and 1400 were attended in their own homes. It was gratifying to be able to announce that the usefulness of the institution would be much increased by the enlargements and additions that have been recently made in the building. A larger number of beds and a new operating theatre were among the best items of equipment that make for the merciful work of the institution and further secure its eminence as an educational centre for Roman Catholic medical men and nurses. Of all classes of hospital it was most necessary that such as that of Holles-street should be equipped on the most modern lines, and the preacher expressed confidence that the public, grateful for the priceless work that has been done and is being done in increasing measure within its wards, "will not allow it to be hampered by the liability incurred through necessary and inevitable improvement." I am glad to record that Canon Fricker's eloquent appeal on behalf of this excellent institution met with a most generous response.

The Annual Report of the Castlebar District Lunatic Asylum.

The report of the result of the annual inspection of the Castlebar District Lunatic Asylum by Dr. E. M. Courtenay, Inspector of Lunatics, has just been published. In September, 1907, there were 712 patients on the books, 451 male and 261 female. Since then 113 had been admitted (77 males and 36 females); 50 were discharged (32 males and 18 females; and 39 died (22 males and 17 females). Accordingly there are at the present date 736 patients, of whom 474 are males and 262 females. Of the deaths, 14 (36 per cent. of the total) were due to tuberculous diseases. There was one case of suicide by drowning but all the others were due to natural causes. The attendant staff appears rather weak in numbers, one attendant to 17 male patients and one nurse to ten females. Even of the above a large proportion of the male attendants are habitually employed on the farm, some outside the asylum grounds.

Medical Economy of Boards of Guardians.

The following proposition was moved and adopted at a recent meeting of the board of guardians controlling the Kiltimagh dispensary district (County Mayo):—

> That in any cases where the Local Government Board make deductions from claims for recoupment in respect of the cost of medicines and medical and surgical appliances, the loss incurred to the ratepayers be charged to the medical officer by whom the articles were ordered.

The hardship and injustice of thus arbitrarily limiting the discretion of a medical officer are obvious.

Compensation for the Death of a Medical Man.

A very important precedent has just been recorded in the matter of compensation for accidents in the case of medical men in the employment of boards of Poor-law guardians. The late Mr. D. P. Murphy, who was medical officer of the Killane dispensary district, Enniscorthy (County Wexford), and coroner for the county, was killed by the collision of a motor car which ran into his dog-cart while he was driving to see a dispensary patient in the routine discharge of his "scarlet-runner" practice. His widow claimed compensation from the guardians under the Workmen's Compensation Act, and the case came before the county court judge at the April quarter sessions, with the result that a sum of £300 was awarded. The board of guardians has decided to drop its proposed appeal, subject to the approval of the Local Government Board and the paying of legal costs by the widow.

Women's National Health Association of Ireland.

It is a source of great satisfaction to the President of the Women's National Health Association of Ireland and to all those who worked under her that a prize of £100 has been awarded to the association at the Washington International Congress on Tuberculosis for the best evidence of effective work in the prevention of tuberculosis. The association has also been bracketed equal with the similar association in New York for the first prize of £200 given by the Congress for the best voluntary association for the prevention of tuberculosis.

Outbreak of Diphtheria at Limavady.

At the weekly meeting of the guardians of Limavady held on Oct. 12th a deplorable state of affairs was shown to exist by the medical officer of the workhouse, Dr. J. W. Watson. The fever hospital, he pointed out, was absolutely full; a second nurse, whom it was necessary to employ, had had to sleep on the floor, and there were no facilities for cooking in connexion with the hospital. He complained that the accommodation provided had been discussed fruitlessly from time to time for the last 12 years, yet nothing had been done. Finally no system of disinfection was in use. They had to keep people in quarantine, but the building was full from top to bottom, and three cases of diphtheria had recently been admitted. Dr. Watson asked what course he could take if he had to admit another case of scarlet fever. It was ultimately decided to purchase a kitchen range, and in a thoroughly parochial way the master was asked to do the best he could to relieve the overcrowding, another idea being that the night nurse could occupy the same apartment as the day nurse, an inexcusable arrangement. It is hoped that the Local Government Board will interfere, or that a question will be put in the House of Commons in reference to the matter.

Oct. 13th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The First International Congress of Urology.

THE First International Congress of Urology held its opening meeting in Paris on Sept. 30th. The International Association of Urology was founded in Paris last year with a limited number of members, an international committee being formed to fix definitely the number for each country. The association is to meet in congress every third year. This first assembly was under the presidency of Professor Albarran, the vice-presidents being Professor Posner (Berlin) and Mr. Watson (Boston). The general secretary and treasurer of the association, M. Desnos and M. Pasteau, are acting in similar capacities to the Congress. The inaugural meeting was held in the large theatre of the Faculty of Medicine, under the presidency of the Minister of Public Instruction who welcomed the Congress in the name of the Government. He was followed by Professor Guyon, honorary president, who was greeted on every side with a storm of applause. In a few words he pointed out the utility of congresses and especially of such international gatherings. Professor Israel (Berlin), speaking in French, next rehearsed the history of the foundation of the International Association of Urology, in which France had taken the largest share, and pronounced a eulogy upon Professor Guyon. M. Desnos also spoke of the organisation and aims of the association. Professor Albarran followed with a discourse upon the importance of urology. The Minister rose at 3.30 and the scientific proceedings were opened. Four subjects were down for discussion: 1. The Pathogeny and Treatment of Anuria, opened by M. Achard (Paris), Mr. Watson (Boston), and Professor Kumme (Hamburg), and followed by M. Alessandri (Rome), M. Teissier (Lyons), M. Jeanbrau (Montpellier), M. Pavone (Palermo), M. Pousson (Bordeaux), M. Legueu (Paris), M. Chauffard (Paris), M. Nicolich (Trieste), and M. Janet (Paris). 2. Vesical Retention without Mechanical Obstruction. This question was considered in three parts;

the first, dealing with anatomical lesions and functional nervous disturbances, was discussed by Professor Frankl-Hochwart. The other two, dealing with the degenerations of the bladder musculature and the reflex influence of certain neighbouring organs, were brought forward by Professor Albarran and his assistant, M. Noguès. The discussion was continued by Mr. E. Keyes, jun. (New York), M. Marion (Paris), M. Bartrina (Barcelona), M. Sellarach (Barcelona), and M. Bazy. 3. The Physiology and Pathology of the Prostate, opened by M. P. J. Haberen (Budapest) and Professor Posner. 4. The Indications for Operations in Renal Tuberculosis, opened by Professor Ceccherelli (Paris), M. Barthélmy Guisy (Athens), M. Brongersma (Amsterdam), and M. Heresco (Budapest). The discussion was continued by M. Kapsamma (Vienna), M. Alessandri (Rome) M. Teissier (Lyons), M. Albarran (Paris), M. Giordano (Venice), M. Noguès (Paris), M. Rovsing (Copenhagen), and others.

The Surgical Congress.

The Twenty-first French Surgical Congress met on Monday, Oct. 5th, in the large theatre of the Faculty of Medicine under the presidency of Dr. Forgue, professor of clinical surgery at the Montpellier School of Medicine, Dr. Richelot (Paris) and Dr. Walther (Paris) being vice-president and general secretary of the Congress respectively. There was a large attendance, including most of the chiefs of the important Parisian and provincial surgical clinics, as well as a large number of general practitioners. The presidential address dealt with the responsibility of the surgeon, which was considered from three principal sides—the responsibility of the surgeon for the results of his treatment; the principles of law and equity bearing upon a surgeon presumed to have acted wrongly, upon which a civil or even a criminal prosecution may be based; and leading cases upon which this branch of jurisprudence is founded. The general secretary then read the minutes and the Congress proceeded to the business of the day, which I will describe next week.

Oct. 13th.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

The Congress of Thalassotherapeutics.

THE last four days of September witnessed an unusual gathering in the beautiful seaside health resort of Abbazia, called the "pearl of the Adriatic," where numerous physicians from various seaside places met in congress to discuss the indications and the results of scientific sea-bathing. More than 250 physicians, many of whom were accompanied by ladies, attended and the discussions point to the fact that a new branch of therapeutics has been placed on a systematic basis and that in future the treatment of certain diseases at seaside resorts will form a very valuable resource of modern therapy. After the official welcome of the congress and the reception of the representatives of various learned societies and governments (France, Germany, Italy, Belgium, and Holland being represented officially) the members entered at once upon the work of the programme. Amongst the more important subjects of discussion were the following. Dr. Hennig (Königsberg) spoke on "Early Diagnosis of Tuberculosis in its various forms and the Influence of the North and East Sea on the Disease." He adduced ample evidence to prove that the pure bracing air, together with cautious bathing, especially in the warmer months, had a decidedly beneficial action on tuberculous affections of the respiratory organs if recognised in the earlier stage as well as on surgical tuberculosis, both before and after operation. He urged the necessity of erecting tuberculosis sanatoriums on the Northern coasts or islands. Dr. Mol (Scheveningen) has found that tuberculous patients do equally well in summer and in winter time if they are only protected from too strong winds. They should remain a little away from the coast, otherwise no special precautions are required. The effects of the sea on asthmatic conditions were considered by Dr. Hartog (Hague). He observed that such conditions were benefited marvellously sometimes by a prolonged stay at the seaside in breezy, bracing places. Asthma of nasal origin, like vaso-motor rhinitis, disappeared at once in some instances for ever, in other cases for longer periods than could be expected under other means of treatment. Dr. Szegoe (Abbazia) read a paper on "Infantile and Juvenile Asthma." He has seen several children with a hereditary taint (obesity, diabetes, asthma, or apoplexy in the parents) who suffered from asthmatic conditions improve wonderfully after a combined treatment of sea-baths, increasing in duration from 10 minutes to one hour, and active and passive respiratory exercises. It should be mentioned that the mean temperature of the sea in Abbazia is 24–26° C. (say 77° F.) during early summer and in September and October, whilst it is higher still in July and August. This enables such protracted baths to be taken safely. Professor von Leyden gave, in a lecture which was received with great applause, a historical sketch of the development of thalassotherapeutics. The Société Médicale de Boulogne-sur-Mer was the first to convoke (1895) the International Congress on Thalassotherapy, with Professor Verneuil in the chair. The Congress proved such a success that next year another one took place in Ostend. Eight years later certain governments and private philanthropists began to take an active interest in the proceedings of the Congress, since the seaside treatment of tuberculosis was found so beneficial. Gynæcological affections and anæmias began to be treated by sea water. Professor Bossi (Genoa) spoke also on the gynæcological aspect of sea-bathing. He emphasised the necessity of exact diagnosis before sending a patient to the sea coast, as strictly surgical cases were not suitable for such treatment. But where after debilitating illnesses pelvic cellulitis or catarrhal affections of the genito-urinary female tract did not improve, a stay at the seaside, with continuation of the regular treatment, was a very useful remedy. Three factors helped to bring about the desired result: the chemico-physical effect of the warm sea bath, the insolation (actinic rays of the sun), and the invigorating pure sea air. These factors produced an increased metabolism with a larger intake of nourishment. The treatment of nervous, hysterical, and neurasthenic types of adolescents was chosen as the subject of Dr. Nussbaum's paper. The causative factor is of course of primary importance, but along with the change of *milieu* the air and the sea-water effected in most cases a decided tonic effect both on the overstrung nerves and on the emotional centres. Careful individual treatment, coupled with physical and suggestive therapeutics, as in all cases of nervous or mental disorders, are of paramount importance. Only a good "all round practitioner" may become an efficient thalassotherapeutist. A very important paper, by Dr. Diem, dealt with the subject of floating sanatoriums. The idea is not a new one. In France and Germany such sanatoriums are already in existence. But Dr. Diem's idea is to cause the building of a number of specially fitted steamers with all the necessary arrangements for treating medical and surgical cases on the open sea; in fact, to build floating hospitals. In charge of the ship should be a competent physician, with a staff of specialists (surgeons, gynæcologists, neurologists) under him with an operating theatre on board. The vessel should not be bound for any special route and should be free from all adherence to time tables; she should stay just where the season and the weather permitted. Dr. Diem's studies of the weather charts, the distribution of the winds and the hours of sunshine, lead him to believe that the Adriatic and the middle part of the Mediterranean are the best parts for such floating sanatoriums, as with the exception of a few days in November the vessel could be always in the open sea without fear of storm.

Oct. 10th.

NOTES FROM INDIA.

(FROM OUR OWN CORRESPONDENTS.)

Cholera in Bengal.

IN the Bengal Sanitary Report for 1907 it is noted that in respect of mortality from cholera the year was the blackest on record except 1900. The deaths reported were nearly 206,000, as against an annual average of 139,000 in the five years 1902–06. A polluted water-supply and the use of unwholesome food by the poorer classes—in consequence of the abnormal rise in the price of common rice—are said to have played an important part in bringing about this high death-rate. In Orissa the floods in August aggravated the local position, and in the Cuttack district alone nearly 32,000 persons died, as against less than 11,000 in the preceding year. In Palaman, where the incidence of cholera is

generally very light, some 80,000 deaths occurred among a comparatively small population. The disease was introduced by returning pilgrims; it assumed a virulent epidemic form, and it spread all over the district as the people in their usual way resorted to flight and thus carried infection from village to village. The medical officers in Bengal have an uphill fight in combating cholera, as the practice of drinking water from tanks prevails everywhere. These sources of supply become contaminated in the rains and it is impossible to purify them. As regards infected wells, the use of permanganate of potassium is now accepted by the people, though in rare instances the prejudice against "pink water" remains. In the towns cholera can be checked almost at once by the permanganate process, but it is out of the question to deal with the thousands of wells in the rural districts, though the villagers are coming to appreciate the value of this chemical substance. Special reference is made in the report to Puri which is the great place of pilgrimage in Bengal. The effect of railway communication has been to keep the town swarming with pilgrims nearly all the year round, and the danger from epidemic cholera has increased. Imported cases spread the disease first in the town and then throughout the district, and the type is invariably a virulent one. The urgent need for a good water-supply is once more insisted upon, and this will apparently be forthcoming as a scheme has been prepared involving the expenditure of nearly 2½ lakhs of rupees. In considering the abnormal mortality from cholera in the province both during 1906 and 1907, one cannot fail to be struck by the unanimous opinion of the medical authorities that the high prices of common foodstuffs have had a marked effect in raising the death-rate. Not only do the people eat unwholesome food, but they become debilitated and their power of resisting the disease is greatly lessened. It is to be hoped that with the fall in prices, which should follow upon the good harvests of this year, an all-round improvement will take place in the public health in Bengal. It has suffered terribly from cholera and malarial fever for some years past and it is time that a change for the better should set in.

Malarial Fever.

The exceptionally heavy rains in the Punjab during the monsoon period will result in a bumper harvest, but it is only too probable that in many districts there will be a severe outbreak of malarial fever in the autumn. Experience has proved that such an outbreak usually follows upon the water-logging of the soil in the plains and the conditions now established are somewhat similar to those of 1900, when autumnal fever caused a high rate of mortality. The only remedy that can be applied is the free use of quinine among the people and arrangements should be made in advance to insure a large supply of the drug in the affected tracts. The sale of pice packets should be encouraged as much as possible and special measures might be taken to inform the rural population once again of the benefits to be derived from the quinine treatment.

Sept. 22nd.

NOTES FROM CHINA.

(FROM OUR OWN CORRESPONDENT.)

Autumn Diarrhœa.

IN the beginning of the autumn season in North China there is an annual outbreak of acute diarrhœa, especially among Europeans; in fact, this is the most unhealthy time of the year and may be regarded as one of the few instances in which the climate here interferes with health. This is due to the change of temperature being rather too sudden for ordinary tissue metamorphosis. During August there is a mean average temperature of 92° F. and this is followed by a cool September with an average of 77° and a rainy season during which the temperature sometimes drops to 62° in the night, and it is then, in the small hours of the morning, that people sleeping with a single sheet covering appear "to catch cold" in their abdomens. What is the precise etiological factor it is difficult to say, but the fact of there being annually at this time a number of cases among the foreign community, all presenting the same clinical picture, makes it worth while noting, as one is often inclined to look upon the history of a patient having "caught cold in his stomach" as being a lay *façon de parler* rather than the real cause. There is invariably a history of having slept lightly clad and a dietary indiscretion is rarely admitted. Severe diarrhœa sets in, accompanied by griping pains and languor sometimes going on to prostration. As a rule there is no increased temperature at first, though if the attack persists there is a rise of one or two degrees. The diarrhœa is of an entero-colitic character, the stools being very offensive, of light yellow colour, a certain amount of mucus being present, and very often the act of defæcation is accompanied by a sense of incomplete evacuation. In some cases there is also bilious vomiting. The attack reacts to treatment and does not usually persist for more than four or five days.

The Lack of Precautions Against Epidemics.

It would be a very desirable thing if more cohesion of medical interests could be brought about in China, especially with a view to a better elucidation of the epidemiology of the empire. In no other country are there so many medical practitioners of all nations, but, working as they do in private practice and for various missions and business concerns and the Imperial Customs Service, they are under no obligation to report any outbreak which may appear in their towns to a central authority. In matters relating to cholera, plague, and scarlet fever, it is especially important that information should be available, not only with a view to the knowledge that would be gained in such questions as the spread of plague but also to advise the adoption of early quarantine measures. The medical staff of the Customs is composed of private practitioners who look after the health of the officials by contract but are not appointed with special reference to public health duties. They are supposed to furnish regular reports and an arrangement was recently made that these would be published in the *China Medical Journal*, but only a small proportion of medical men report and at odd intervals. The present Inspector-General of Customs, Sir Robert Bredon, was formerly an army surgeon (as, by the way, were Sir Rutherford Alcock and Sir Halliday MacCartney—two names famous during the last half century in Chinese foreign affairs) and, as he has only recently taken over the direction of this immense organisation the hope is being expressed that he will make some active efforts to demand more systematic and detailed reports from the Customs medical officers at the treaty ports. Recently a coolie was found lying sick in the streets in Shanghai. On being taken to hospital it was found that he was suffering from cholera, and it was also discovered that he was one of a gang of 30 beggars who had come down from Hupeh. Cholera is at present very rife in some of the Yangtze river ports, notably at Hankow and Ichang, but unless a Consul or the Superintendent of Customs thinks fit to report, the responsibility rests with the masters of vessels who are bound by the Shanghai sanitary regulations to hoist the yellow flag if they have any cases of plague, cholera, typhus fever, or yellow fever on board. The question of diagnosis of these cases by laymen is involved and in a shipload of hundreds of native passengers it is comparatively easy for these cases in their early stages to escape detection. Plague has broken out at Tongshan, a busy mining and railway-works town about half a day's journey to the north-east of Peking. Over 70 deaths have occurred from it and active measures are now being taken to limit its spread. The outbreak occurred in the Cantonese quarter—a man suffering from bubonic plague having recently arrived from Canton. For public authorities and others who are inclined to cavil at the expense of sanitary prophylactic measures, there are, as I have pointed out before, many concrete examples to be got from China of the expense entailed by lack of their observance. The Japanese are alive to the dangers of the situation and do not wait for any action being taken on the part of China. Their Consul-General at Shanghai, Mr. H. Eitaki, has received a telegram from Tokyo to the following effect. "On account of the prevalence of cholera in Hankow and the ports of the Lower Yangtze, the Japanese authorities have issued a notification declaring the said ports, except Shanghai, to be infected. All vessels arriving therefrom at Japan ports, on and after the 11th instant, are to abide by and be governed by the sanitary regulations for the ports of Nagasaki, Moji, Kobe, Yokohama, and Hakodate." The port sanitary authorities, especially of India, might note from this that it is on their side that initiatory action must be taken with regard to ascertaining the presence of cholera, &c., in these minor ports,

such as on the Lower Yangtze, which are without the benefit of such efficient and active port medical departments as at Hong-Kong and Shanghai.

The late Mr. G. F. Stooke, L.R.C.P. & S. Edin., L.F.P.S. Glasg.

One of the European victims of cholera at Ichang, a port on the Yangtze river, was Mr. George F. Stooke, a member of the Church of Scotland Mission. He had a fine medical career in Edinburgh, having won several medals and bursaries, and his subsequent career in China was one of skilful and enthusiastic medical mission work. The scope of the surgical department of the hospital at Ichang had considerably increased under his hands, and he paid much attention to keeping himself abreast of tropical medicine in all its latter-day developments. Much sympathy is felt for his widow, Mrs. Jessie Stooke, L.R.C.P. & S. Edin., who coöperated with him in the work of the hospital.

Peking, Sept. 12th.

Obituary.

CHARLES HARRINGTON, M.D. HARVARD,

SECRETARY OF THE MASSACHUSETTS STATE BOARD OF HEALTH.

THE cause of public health in America has suffered a severe loss in the death of Dr. Charles Harrington, secretary of the Massachusetts Board of Health and director of school hygiene to the city of Boston. He had come to England for the benefit of his health and was staying with his friend Dr. Bowen of Boston at Lynton, Devonshire. On Sept. 11th he was seized with an attack of syncope and died very suddenly.

Dr. Harrington was born in Salem, Massachusetts, in 1857 and graduated M.D. at Harvard University, taking prolonged post-graduate courses at Leipsic, Strasburg, and Munich. He commenced his teaching connexion with the Harvard Medical School in 1883 and occupied the post of assistant professor of hygiene for 15 years. He has contributed many valuable articles on public health to various medical publications. In December, 1904, he was appointed secretary to the Massachusetts State Board of Health in succession to the late Dr. Samuel W. Abbott. Previously he had been chemist to the board, and for 15 years was in charge of the Milk Inspection Bureau of the Boston board of health. He advocated the creation of a Central Federal Board of Health at Washington to unify and to control all the State boards of health in the United States. He led the agitation against so-called sterilised milk and introduced the law which enacts that all such milk sold in the State should be standardised and labelled. He was the prime originator of the medical inspection of school children in the city of Boston and the State of Massachusetts as far back as 1892. That system is now the model followed by all the States of the Union. He secured a Bill in the Massachusetts legislature making it a felony to sell cocaine mixtures and preventing cocaine snuffs being sold to children. He leaves a wife and three children who have the sympathy not only of his American colleagues but of the medical profession of the country where he died so far from his home.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Dr. William Thomas Eckley, formerly professor of anatomy in the Chicago College of Physicians and Surgeons.—Dr. Charles Vinay, formerly physician to the Lyons Hospitals and *agrégé libre* in the medical faculty of that university.—At Vienna, Dr. K. Langer, Court Councillor and formerly director of the Wieden Hospital.—Dr. Joseph Schreiber, who was physician in several Austrian bath establishments, lecturer in climatology in the University of Vienna, and an author of works on massage and therapeutic gymnastics. He enjoyed the rank and title of Imperial Councillor. His age was 74 years.—Professor Zumstein, prosector in the Anatomical Institute, Marburg.—Dr. Abraham Lissauer, librarian of the Berlin Anthropological Society. He was in practice in Dantzig until about 16 years ago when he went to Berlin where his anthropological and hygienic researches were recognised by the Government who appointed him a sanitary Privy Councillor, and by the university which gave him the honorary title of professor. His age was 76 years.—The death may also be recorded here of Frau Rosenthal v. d. Leyden, M.D., one of the first women to qualify as medical practitioners in Germany. She had published papers in the medical journals on children's diseases and on gynæcological subjects. Her age was 34 years.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS OF LONDON AND SURGEONS OF ENGLAND.—At the Second Professional Examination in Anatomy and Physiology held on Oct. 1st, 2nd, 5th, and 6th 71 candidates presented themselves, of whom 41 were approved and 30 were rejected. The following are the names of the successful candidates:—

Emmanuel Caetan Alles, L.M. & S. Ceylon, Ceylon Medical College and King's College Hospital; Henry Park Ashe, King's College Hospital; Thomas Ewart Ashley, University College, Bristol; Rustam Hormasji Bharucha, L.M. & S. Bombay, Bombay and King's College Hospital; Herbert Stuart Blackmore, University College Hospital; Tudor David John Bowen, University College, Cardiff; Herbert Hayward Budd, St. Mary's Hospital; Maurice Burnett, St. George's and King's College Hospitals; Herbert Vawdrey Capon, St. Bartholomew's Hospital; Herbert Edward Cockcroft, Victoria University, Manchester; Hugh John Couchman, B.A. Cantab., Cambridge University; William Henry Dupré, St. Bartholomew's Hospital; Willoughby Gordon Grant, London Hospital; Harry Leroy Satterlee Griffiths, University College, Cardiff; John Griffiths, University College, Cardiff; Bernard George Gutteridge, St. Thomas's Hospital; Alan Ashton Henderson, University College Hospital; Gordon Victor Hobbs, St. Mary's Hospital; Ah Chit Jap, Guy's Hospital; Tiruvallur Katakam Jayaramulu, Madras and King's College Hospital; Harold Drew Lander, B.A. Cantab., St. Bartholomew's Hospital; Frederic George Lloyd, Guy's Hospital; Donald Gregory Macpherson, London Hospital; Dalton Mallam, London Hospital; Geoffrey Marshall, Guy's Hospital; Valentine Cleeve Martyn, St. Mary's Hospital; Mendel Mayers, London Hospital; Shamrao Ramrao Moolgaokar, Bombay University and King's College Hospital; Henry Locke Paddon, B.A. Oxon., Oxford University and St. Thomas's Hospital; Abdoolrasool Abdoola Parpia, Bombay University and King's College Hospital; Hubert Charles George Pedler, University College Hospital; Robert Bradley Roe, St. George's and King's College Hospitals; August Carl Schulenburg, Washington University and Guy's Hospital; Henry Wakeman Scott, B.A. Cantab., Cambridge University and King's College Hospital; Alexander Stanger Seabrooke, B.A. Cantab., Cambridge University; Francis Robert Bradley Skrimshire, St. Thomas's Hospital; Henry Lionel Hughes Steele, St. Thomas's Hospital; Samuel Ariaratnapillai Vairakiam, L.M. & S. Ceylon, Ceylon Medical College and London Hospital; William Watts, Victoria University, Manchester; Frederic St. Barbe Wickham, St. Mary's Hospital; and Arthur Tudor Williams, London Hospital.

At the quarterly examination in Practical Pharmacy held on Oct. 8th the following gentlemen were approved:—

Douglas Allan, B.A. Cantab., Cambridge University and Guy's Hospital; Harold Wordsworth Leach Allott, Sheffield University; John Henry Bennett, St. George's and King's College Hospitals; Henry Cecil Billings, London Hospital and private study; Maurice Frederic Bliss, London Hospital; James Alfred Ayton Boddy, Victoria University, Manchester; William Hackett Broughton, Victoria University, Manchester; Eric Abdy Collins, Guy's Hospital; Hubert Daw, Guy's Hospital; Bartholomew Gidley Derry, University College, Bristol; Allan Dewar, St. Mary's Hospital; Robert Sydney Doran, Charing Cross Hospital and private study; Daniel Cuthbert Druitt, Guy's Hospital; Harry Rumsey Edwards, King's College Hospital; Claude Emery Freeman, Sheffield University; Archibald Louis George, L.D.S. Eng., Guy's Hospital; William Edward Hallinan, Charing Cross Hospital; Cuthbert Izon Harmar, Birmingham University and private study; Joseph Cecil Harris, L.D.S. Eng., Birmingham University; Frederick Theophilus Hill, St. Bartholomew's Hospital; John Carrington Marklove, B.A. Cantab., Cambridge University and St. Thomas's Hospital; Gerald Noel Martin, London Hospital; Lionel Everard Napier, St. Bartholomew's Hospital; Jeremiah John O'Mullane, Queen's College, Cork, and private study; William Guy Pinching, B.A. Oxon., Oxford University and Guy's Hospital; Evan David Richards, St. Bartholomew's Hospital; Christopher Hugh Leete Rixon, St. Thomas's Hospital; John Basil Robinson, London Hospital; Ernest Arthur Runting, Middlesex Hospital; Alfred Henry Valentine St. John, Guy's Hospital and private study; Alexander Elder Saunderson, Liverpool University; Henry Hercules Skinner Templeton, University College, Bristol; Arthur Tilbury, Guy's Hospital; Ivan Lindley Waddell, St. Bartholomew's Hospital; Thomas Sykes Ward, Sheffield University; Francis James Wheeler, Guy's Hospital; Harry Wilks, Birmingham University; William Worger, University College, Bristol.

UNIVERSITY OF CAMBRIDGE.—At the first examination for the degree of Bachelor in Medicine the following candidates were successful:—

Part I., Chemistry and Physics.—P. H. Berry, King's; M. W. K. Bird, Emmanuel; L. G. Bradfield, Caius; I. M. Brown, Downing; H. J. H. Cursetjee, Caius; H. Dunkerley, Downing; H. H. M. Gould, Clare; A. D. Haydon, Caius; A. M. Humphry, Trinity;

T. Owen, Jesus; H. S. Reed, B.A., Trinity; J. C. Russell and J. E. Sharp, Caius; T. W. Sheldon, Emmanuel; A. E. Staffurth, Sidney Sussex; J. M. Thorburn, Trinity; E. H. Thurston and A. R. S. Warden, Caius; F. A. Williamson, Queen's; and H. G. Wiltshire, Emmanuel.

Part II., Elementary Biology.—G. L. Attwater, Pembroke; M. T. Clegg, Jesus; H. E. Creswell, H. H. M. Gould, and G. C. King, Caius; C. Lambrinudi, Christ's; J. A. Martin, Pembroke; J. B. Matthews, Clare; W. New, Downing; C. F. Pedley, Jesus; F. S. L. Piggott, Emmanuel; H. S. Reed, B.A., Trinity; and L. H. D. Thornton, Emmanuel.

The following have passed the examination for the Diploma in Tropical Medicine and Hygiene:—

L. Bostock, F. W. Clark, G. Fowler, F. Harvey, F. I. M. Jupe, A. F. G. Kerr, C. A. L. Mayer, H. B. Owen, W. T. Qualfe, A. H. Skinner, G. U. Smith, and G. D. Whyte.

C. C. Dobell, B.A., Trinity College, has been elected Balfour student.—Dr. H. B. Roderick of Emmanuel College has been reappointed demonstrator of surgery for five years.

UNIVERSITY OF GLASGOW.—The following have passed the First Professional Examination for the degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.) in the subjects indicated (B., Botany, Z., Zoology; P., Physics; C., Chemistry):—

James Angus (C.), Charles Averill (C.), Henry Stanley Banks (B., P.), Johannes Gerhardus Becker (B., P.), Simon Harry Bloom (B.), Samuel Blumenfeld (B., P.), John Smith Knox Boyd (B., P.), Adam Brown (B., P.), William Brown (P.), James Law Brownlie (B.), Alexander Graham Buchanan (B., P.), John Scouler Buchanan (B., P., C.), Norman Cameron (Z., P.), James Alexander Chrystie (B.), George Cochrane, M.A. (P.), John Connell (B.P.), Robert Craig (C.), William Cullen (Z.), Daniel Augustine Cush (P., C.), George Dalziel (Z., C.), Alexander Hugh Davidson (B.), William Cameron Davidson (B., Z., P., C.), James Henry Dible (B., P.), John Dickie (B., Z., P., C.), William Donald (C.), William Beatson Drummond (B., P.), James Findlay (C.), William Campbell Fleischmann (B., P.), John Maitland Forsyth (B., Z., P.), William Forsyth (B., P.), William Fotheringham (B., Z., C.), William Fraser (C.), John Erskine Fyfe (B., P.), Alexander Muir Gibson (B., P.), Alexander Glen (B., P.), Cecil William Fletcher Greenhill (B., Z.), James Hamilton (B., P., C.), John Alexander Harper, M.A. (Z.), Peter Henderson (C.), John Galloway Hendry (C.), Peter Henretty (Z.), John Wishart Welsh Hewitt (B., P.), Thomas Cameron Houston (B., P.), William Muir Howells (B., P.), Douglas Macinnes Hunter (B., P.), Andries Johannes Joubert (B., P.), Johannes Arnoldus Kruger (B., Z., P.), Frank Lawrie (C.), R. A. Lennie (B., Z.), Norman Veitch Lothian (B., P.), Peter Alexander M'Callum (B., P.), John Aloysius M'Connochie (B., P.), John M'Ghie (B., P.), Charles Aloysius M'Guire (B., P.), Guy Dalzell M'Lean (B., P., C.), Ewen Stewart Macphee (B., P.), John Malcolm Macpherson (B., P.), John Henry Magoveny (Z., P.), William Ebenezer Maitland (B., P.), Thomas Martin (B., P.), Thomas Spence Meighan (Z., C.), William Montgomery (P., C.), Neil Morison (C.), Andrew Shennan Neilson (C.), John Boyd Orr, M.A. (B.), Robert Parker (Z., C.), Andrew Peden (Z., C.), James Leslie Ruthven Philip (B., P.), James Francis Quigley, Lambhill (B., P.); Angus M'Innes Ramsay (B., P.), Robert Ray (P.), David William Reid (Z., P.), John Ritchie Richmond Ritchie (Z., C.), Frank Morton Robertson (B., P.), James Inglis Robertson (P., C.), Samuel Rutherford (P.), Frank Shearar (B., C.), John Sillars (B., P.), Neil Islay Sinclair (Z., P.), John Finlayson M'Gill Sloan (P.), Hendrik Cornelius van der Wat Smit (B., P.), David Smith (B., P.), John Kenneth Smith (Z., C.), Alexander Robert Boag Soga (B., P.), Graham Stevenson (B. Z., P., C.), Ronald Stewart (B., P.), Ian Dishart Suttie (B., P.), Ernest Graham Young Thom, M.A. (B.), Angus Macpherson Walker (C.), James Cairns Watt (B., P.), George Milroy Whish (B., P.), William Herbert Nairne White (P., C.), Frederick John Whitelaw (B., P.), Neil Young Wilson (B., P.), William Ferguson Wood (B., Z., P.), and Andrew Morton Young (B., P.).

Women.—Ethel Crawford (B., P.), Jane Malcolm Davidson (B., P.), Margaret O'Rourke Gallagher (Z.), Lillias Beverley Hardie (Z.), Janet Fraser Henderson (B.), Mary Pringle Hislop (B., P.), Jane Kerry M'Elroy Hunter (B., P.), Mary Anne Kirk (B., Z.), Janet Morrison M'Kechnie (B.), Sarah Naismith (B., P.), Sarah Anderson Jamieson Rankine (B., P.), Christina Hamilton Shearer (P.), Petrina Stewart (C.), and Janet Morris Walker (B., Z.).

The following have passed the Second Professional Examination for the degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.) in the subjects indicated (A., Anatomy; P., Physiology; M., Materia Medica and Therapeutics):—

Robert Richmond Archibald, M.A. (A., P., M.), Charles Auld (M.), Robert Blackie Austin (A.), Charles Stewart Black (A.), James Elliot Black (P., M.), John Bower (P., M.), Charles Brash (A.), Alexander Hogg Brown (P.), James Alexander Stewart Burges (A.), John Cameron (M.), George Wilson Clark (P.), Robert Hunter Deans (M.), James Thomson Dick (M.), John Nairn Dobbie (M.), Donald Downie (A.), Alexander Moffat Dunlop (P.), James Dunlop, M.A. (M.), William Deanburn Dunlop (M.), Philip Figdor (M.), Alexander Fraser (P., M.), Thomas Lochhead Fraser (A., P., M.), Pietro Giuliani (A., P., M.), John Reid Haldane (A., P., M.), Allan Byars Hamilton (A., M.), William Hamilton (M.), James Hendry, M.A. (P.), William Hunter Howat (P., M.), Charles Joseph Hamilton Kirk (M.), Ian Macdonald (M.), William Macewen (M.), John Gladstone Mackenzie (A.), Thomas Jones Mackie (M.), Murdo Mackinnon (A.), Andrew Bruce MacLean (M.), Alexander Thomson M'Whirter (M.), Francis William Martin (P.), John Park Mathie (P.), Robert Stewart Miller (A.), Michael John Murray (A.), Archibald Naismith (A.), John Paterson (A.), Thomas Paterson (A., M.), Richard Reid Kirkwood Paton (A.), Arthur Poole (A., M.), Arthur Stanley Richmond (A., M.), John Ivison Russell (M.), Joseph Henry Napoleon Felix Savy (M.), James David Speid Sinclair (P., M.), George Rae Spence (A.), Roderick Alexander Steven (P.), John Torrance Weir Stewart (A.), Andrew Edgar Struthers (A.), Charles Lindsay Sutherland (A., P., M.), John Norman Sutherland (P., M.), Edward Napier Thomson (P., M.), James Lachlan Ure (M.), Egerton Cari White (M.), James Williamson (Holytown) (A., P.), George Jackson Wilson (P.), Hugh Gilmer Wilson (A.), and Henry Yellowlees (A.).

Women.—Mary Alexander, M.A. (A., P.), Marie Alexina Annette Beard (P.), Louisa Emma Dodge (A.), Barbara Sutherland, M.A. (A.), Jemima Wallace (M.), and Marion Aitken Wylie, M.A. (M.).

The following have passed the Third Professional Examination for the degrees of Bachelor of Medicine (M.B.) and Bachelor of Surgery (Ch.B.) in the subjects indicated (P., Pathology; M., Medical Jurisprudence and Public Health):—

David Rutherford Adams (P., M.), Archibald Aitchison (P.), Andrew Clark Anderson (P.), William Anderson (M.), John Atkinson (M.), James Currie Auchencloss (P., M.), David Barbour (M.), Edgar Barnes, M.A. (P.), Arthur Munby Bayne (M.), Emile Augustine Cameron Beard (P., M.), Douglas Morris Borland (M.), John Allan Munro Cameron (P., M.), Rutherford David Cramb (P., M.), Donald Fisher (M.), Thomas Loudon Fleming (M.), George Fletcher, M.A. (P., M.), Edward George Glover (P., M.), John Gray (M.), James Harper, M.A. (P., M.), William Howat, M.A., (P., M.), William Howie (M.), James Walker Jones (M.), Alexander Leishman (P., M.), William M'Adam, M.A., B.Sc. (M.), James Macallan (P.), William Charles Macartney (P.), Donald M'Dougall (P., M.), Thomas Mackinlay (P., M.), Donald Mackinnon (P.), William Alexander Maclennan (M.), John William M'Nee (M.), Donald Meek (P.), Angus Millar (M.), Robert Wright Mitchell (M.), Hyacinth Bernard Wenceslaus Morgan (M.), John M'Intosh Morgan (P., M.), John Mowat (M.), Frederick Lewis Napier (M.), Robert Charles Robertson (P., M.), William Wilson Rorke (P., M.), William Wilkie Scott (P.), James John Sinclair (P., M.), Richmond Steel (P., M.), Edward Ernest Stewart (P., M.), Robert Wilson Sutherland (P., M.), Duncan Macnab Taylor (M.), Charles Herman Wagner (M.), William Richard Wiseman, M.A., B.Sc. (P., M.), and David Yellowlees (M.).

Women.—Christina Barrowman (P.), Florence Ann Gallagher (P., M.), Honoria Somerville Keer (P.), Jeanie Douglas M'Whirter, M.A., (P., M.), Margaret Muir (M.), and Jessie Deans Rankin (M.).

At the recent professional examinations for the degrees of M.B., Ch.B., the following candidates passed with distinction in the subjects indicated:—

FIRST EXAMINATION.

In Zoology, Physics, and Chemistry.—Graham Stevenson.
In Botany and Physics.—David Smith.
In Botany.—Norman Veitch Lothian, Thomas Martin, and John Boyd Orr, M.A.
In Zoology.—William Cameron Davidson and John Ritchie Richmond Ritchie.
In Physics.—Henry Stanley Banks, Samuel Blumenfeld, William Muir Howells, Charles Aloysius M'Guire, Guy Dalzell M'Lean, Ronald Stewart, George Milroy Whish, and Neil Young Wilson.
In Chemistry.—Andrew Shennan Neilson and Angus Macpherson Walker.

SECOND EXAMINATION.

In Physiology.—Robert Richmond Archibald, M.A., and James David Speid Sinclair.
In Materia Medica and Therapeutics.—Thomas Jones Mackie and James Lachlan Ure.

THIRD EXAMINATION.

In Pathology.—Robert Wilson Sutherland.
In Medical Jurisprudence and Public Health.—William M'Adam, M.A., B.Sc., John William M'Nee, and Hyacinth Bernard Wenceslaus Morgan.

ROYAL COLLEGE OF SURGEONS IN IRELAND: FELLOWSHIP EXAMINATION.—The following candidates having passed the necessary examination have been admitted Fellows of the College:—

K. K. Chatterji, L.M. & S., Calcutta University; and B. J. Newmarch, M.R.C.S. Eng., L.R.C.P. Lond.

FOREIGN UNIVERSITY INTELLIGENCE.—*Berlin:* Dr. Piper of Kiel has been appointed Chief of the Physical Department of the Physiological Institute.—*Bonn:* The title of Professor has been granted to Dr. Bernhard Fischer, *privat-docent* of Pathological Anatomy.—*Bordeaux:* Dr. Beille, *agrégé*, has been appointed to the chair of Materia Medica in succession to the late Dr. de Nabias.—*Chicago (North-Western University):* Dr. S. Walter Ransom has been appointed Assistant Professor of Anatomy.—*Erlangen:* Dr. Richard Fuchs, *privat-docent* of Physiology, has been promoted to an Extraordinary Professorship.—*Gratz:* Dr. Rigobert Possek has been recognised as *privat-docent* of Ophthalmology.—*Kiel:* As Professor Lüthje, who has been appointed to succeed Professor Quincke in the chair of Clinical Medicine, will not begin work until January, Professor Wandel, *Oberarzt* of the Medical Clinic, has been appointed to deliver the lectures until Christmas.—*Königsberg:* Dr. Wilhelm Zangemeister, *privat-docent* of Gynæcology, has been granted the title of Professor.—*Lemberg:* Dr. Maximilien Herman, *privat-docent* of Operative Medicine, has been promoted to an Extraordinary Professorship; Dr. Ladislas Szumowski has been recognised as *privat-docent* of the History of Medicine.—*Lyons:* Dr.

Paviot, *agrégé*, has been appointed to the chair of Pathological Anatomy in succession to Dr. Tripier.—*Minden:* Dr. Rapmund, Medical Privy Councillor, has been granted the title of Professor.—*Munich:* Dr. J. Fessler has been appointed Extraordinary Professor of Surgery; Dr. O. von Sicherer, Extraordinary Professor of Ophthalmorogy; and Dr. O. Krummacher, Extraordinary Professor of Physiology. —*Naples:* Dr. Enesto Paparcone has been recognised as *privat-docent* of Ophthalmology; Dr. Gaetano Vinci of Messina has been recognised as *privat-docent* of Materia Medica and Experimental Pharmacology.—*Parma:* Dr. Adolfo Ferrato has been recognised as *privat-docent* of Histology and of Medical Chemistry. — *Philadelphia (Woman's Medical College of Pennsylvania):* Dr. Theodore Le Boutillier has been appointed Professor of Children's Diseases.—*Prague (Bohemian University):* Dr. Wladimir Slavik, Extraordinary Professor of Forensic Medicine, has been promoted to an Ordinary Professorship; Dr. Heinrich Matiegka has been appointed Extraordinary Professor of Anthropology and Demography; and (*German University*): Dr. Emanuel Zaufal is retiring from the Extraordinary Professorship of Otology and Dr. Piffl has been appointed to succeed him.—*Vienna:* Dr. Fritz Kermauner and Dr. Julius Schottländer have been recognised as *privat-docenten* of Midwifery and Gynæcology; Dr. Leo Fleischmann as *privat-docent* of Odontology; and Dr. Josef Schaffer Extraordinary Professor of Histology, has been granted the title of Professor.

ANNUAL MEETING AND DINNER OF THE CONTINENTAL ANGLO-AMERICAN MEDICAL SOCIETY.—The annual meeting of this society was held in Paris on Oct. 10th. Dr. E. H. Douty (Cannes) was in the chair and the following members were present: Dr. J. Egerton Brandt (Nice), Dr. Cafferata (Spa), Dr. Mills (Langenschwalbach), Dr. R. Pryce Mitchell (Monte Carlo), Dr. Treves Barber (Geneva), Dr. Bull, Dr. Marncheau, Dr. Warden, Dr. Turner, Dr. Jarvis, and Dr. Leonard N. Robinson (Paris), the honorary secretary, who presented his annual report and briefly summarised the chief changes and innovations which had taken place in the society in the six years during which he had held that office, and thanked the various members of the society for the help which they had always given in carrying on the work. On the motion of Dr. Cafferata a unanimous vote was passed thanking Dr. Robinson for the work which he had done during his term of office. The treasurer's annual report showed the finances of the society to be in a flourishing condition. A general discussion took place on the question of appointing an ethical committee, and it was decided that, as heretofore, questions of an ethical nature shall be notified to the secretary who after consultation with the executive committee shall lay the matter before the annual meeting. A vote of thanks to Dr. Douty brought the meeting to a close. The annual dinner of the society was held in the evening at the Hôtel du Palais d'Orsay, the chair being taken by Sir Dyce Duckworth, President of the British branch of the Entente Cordiale Médicale. About 30 members and their guests were present. The chairman in eloquent terms proposed the toasts of "The King," "The President of the United States," and "The President of the French Republic." When these toasts had been duly honoured the chairman proposed the toast of the evening, "Success to the Society," pointing out its utility in bringing together men duly qualified and of high moral standing. English and American patients naturally desired to be attended by physicians speaking their own language and knowing the peculiarities of their constitutions. Moreover, the society was an important factor in the *entente cordiale médicale*, the members being in constant contact with their French *confrères*, with whom they were on the best terms of cordial fellowship and mutual esteem. Dr. Pryce Mitchell replied on behalf of the society. Dr. Douty, in a witty speech, proposed "The Guests," coupled with the name of Professor Raymond, President of the French branch of the Entente Cordiale Médicale. To this toast Professor Raymond replied by expressing the hope that in the near future the physicians of Great Britain, America, and France would be as strongly united as were united on their three national flags the three same colours. The health of the retiring and of the new secretary having been duly proposed and acknowledged, Dr. Suzor proposed the health of the chairman, eulogising his catholicity of spirit, dwelling on the influence of his teaching, and thanking him in the name of the society for having so kindly consented to come from London to preside over their gathering. Sir Dyce Duckworth in his reply touched on the great influence of the French school on modern medicine and on his own doctrines. Having thanked the members for their cordial reception this most successful meeting was brought to a close.

HONITON (DEVON) BOARD OF GUARDIANS AND VACCINATION.—As mentioned in a previous issue of THE LANCET the public vaccinators of the Honiton union resigned their appointments as they would not accept the reduced fees offered by the guardians. The vacant posts were advertised but no applications were received for them owing to the small fees offered. Eventually the guardians unanimously decided to reappoint their old public vaccinators and to give them their old scale of remuneration.

LONDON SCHOOL OF TROPICAL MEDICINE.—At the inaugural meeting of the winter session of the London School of Tropical Medicine, which was held on Wednesday, Oct. 14th, Lord Crewe presided, and after the presentation of a satisfactory report by the secretary delivered an interesting address in which he pointed out what a good and beneficent work the school was doing for the Empire. Sir T. Clifford Allbutt and Sir Patrick Manson also spoke. In the evening the annual dinner was held at the Hotel Savoy, Strand, Commander George Hodgkinson, R.N., occupying the chair. In proposing the toast of "The School," Mr. Neville Chamberlain in an excellent speech summarised the admirable objects of the institution and the satisfactory progress which it had made. He cited instances in which the study of tropical medicine had converted veritable death-traps into habitable places. The great engineering scheme began years ago at Panama could now safely be continued, Havana was now healthy, and soon there was every prospect of Uganda being delivered from the scourge of sleeping sickness. Mr. Chamberlain concluded by referring to the continued interest which his father, Mr. Joseph Chamberlain, took in the movement, adding that he had never wavered in the profound conviction of the value of their work and of the contribution which they were making towards the fulfilment of their Imperial obligations.

MEDICO-PSYCHOLOGICAL ASSOCIATION: SOUTH-EASTERN DIVISION.—The members of this division met on Oct. 6th at Leavesden Asylum and there was a good attendance. The wards, nurses' home, and other buildings of this excellently equipped institution were visited and subsequently Dr. F. A. Elkins entertained the members to luncheon. After luncheon the meeting took place, Dr. Robert Jones being in the chair. Dr. Elkins read a paper on Some Notes on Recent Changes, in which he strongly defended the principle of the "living-out" system for the members of the staff, both male and female. From his paper it would appear that more than half of the nursing staff live and board outside the institution and the results were stated to be eminently satisfactory. Dr. Elkins gave details of the measures adopted for combating tuberculosis and described the structural alterations which had taken place in recent years at Leavesden Asylum. Dr. Dixon introduced a discussion on the use of sedatives in insanity. The question of drug treatment was but lightly touched upon, and the main desire of the introducer was to draw attention to those means other than drugs by which the course of an attack of mental disease might be influenced. Both papers were freely discussed and votes of thanks to Dr. Elkins for so hospitably receiving the division and to Dr. Jones for acting as chairman closed the proceedings. In the evening many members dined at the Café Monico.

COMPLIMENTARY DINNER TO DR. WILLIAM BRUCE.—In celebration of his medical jubilee Dr. W. Bruce of Dingwall has just been entertained to dinner and presented with a handsome and highly appreciative address by the Northern Counties of Scotland Branch of the British Medical Association. The gathering gtook place in the Ben Wyvis Hotel, Strathpeffer Spa, was presided over by Dr. W. F. De Watteville, president of the branch, and was attended by a large number of members of the Association and the principal representatives of town and county in Ross and Cromarty, including Colonel Sir Hector Munro of Foulis, Bart., A.D.C., Lord Lieutenant of the county, and Mr. Hay MacWatt, sheriff substitute. Dr. De Watteville, in proposing the toast of the evening, said that for some 20 years, as

Direct Representative of the profession on the General Medical Council, Dr. Bruce had laboured untiringly for all that tended to raise and to uphold the status of the general practitioner. Dr. Bruce replied in a feeling and appropriate speech of thanks. Other toasts followed and the proceedings throughout reflected the high appreciation in which the profession hold the *doyen* of Northern physicians.

HER Royal Highness the Princess of Wales has graciously extended her patronage to the special *matinée* of the play of *Charles I.* to be given in aid of the School and Restaurant for Nursing Mothers, Somers Town, St. Pancras, by Mr. H. B. Irving and Miss Dorothea Baird at the Shaftesbury Theatre in November.

UNIVERSITY COLLEGE HOSPITAL MEDICAL SCHOOL: ENTRANCE EXHIBITIONS.—The first exhibition has been awarded to Mr. L. S. B. Tasker, of University College, London, and the second exhibition has been divided between Mr. G. W. Johnson, of Brasenose College, Oxford, and Mr. J. M. Wallace, of Downing College, Cambridge.

WIGAN MEDICAL SOCIETY.—The annual meeting of this society was held on Oct. 8th. The following office-bearers were appointed:—President: Dr. G. Wolstenholme. Committee: Mr. C. T. Street, Dr. F. Rees, Dr. M. Benson, Mr. C. M. Brady, Mr. T. M. Angior, and Mr. William Berry. Treasurer: Mr. E. H. Monks. Honorary Secretary: Dr. J. Blair.

THE LATE MR. JOHN BRISCOE.—At a meeting of the Oxford Medical Society held at the Radcliffe Infirmary on Oct. 9th, the following motion, proposed by Mr. H. P. Symonds and seconded by Mr. R. H. A. Whitelocke, was carried and entered on the minutes of the society:—

That this meeting desires to record its opinion of the high esteem in which the late Mr. John Briscoe was held by the society and to express its regret at the great loss sustained by the profession at large by his death.

READING PATHOLOGICAL SOCIETY.—The annual meeting of this society was held under the presidency of Dr. J. B. Hurry on Oct. 8th at the Royal Berks Hospital. An oration on the Treatment of Infective Conditions by Vaccines was given by Dr. F. W. Andrewes, pathologist to St. Bartholomew's Hospital. The annual dinner took place at the conclusion of the meeting. The Reading Pathological Society was founded in 1841 and is therefore one of the oldest medical societies in the Kingdom.

BRISTOL MEDICAL SCHOOL.—The following prizes were distributed by Sir Rubert Boyce at the annual prize-giving of the Bristol University College Faculty of Medicine on Oct. 1st:—Winter session: Medical entrance scholarship, E. Wade. Medicine: prize, C. A. Joll; certificate, F. C. Morgan. Surgery: prize, C. A. Joll. Hygiene and public health: prize, C. A. Joll; certificates, F. C. Morgan and T. B. Dixon. Biology: prize, C. Kingston; certificate, R. I. Dacre. Pharmacology: prize, J. F. Morgan; certificates, R. Wright, R. Bolt, W. Pratt, and W. Reynolds. Senior anatomy: prize, R. Wright; certificates, R. Bolt, W. Pratt, S. Marle, V. Pinnock, and P. Burton. Junior anatomy: prize, A. Fisher; certificates, E. Abraham, R. Burton, G. Smith, and G. Fawn. Midwifery: prize, E. Davies; certificates, C. A. Joll, F. Morgan, F. Nicholls, T. Dixon, P. Pinnock, and P. Veale. Pathology: prize, C. A. Joll; certificates, T. Dixon and F. Morgan. Physiology (Part I.): prize, E. Abraham; certificates, G. Fawn, W. Salisbury, and E. A. Barker. Physiology (Part II.): prize, W. Salisbury; certificates, E. Abraham, G. Fawn, H. Logan, R. Burton, and W. Worger. Physiology (Part III.): prize, W. Salisbury; certificates, A. Hieber, A. Fisher, E. Abraham, and W. Worger. Summer session: Medical Jurisprudence: prize, C. A. Joll; certificate, B. Stone. Operative surgery: prize, C. A. Joll. Practical Medicine, Surgery, and Midwifery: prize, P. Veale. Materia Medica: prize, G. Fawn. Anatomy (summer): prize, A. Fisher; certificates, B. Derry, K. Cole, E. Abraham, and G. Fawn. Chemistry: prize, C. Kingston; certificates, B. Morgan and C. Osborne. Dr. Newnham's prize: C. A. Joll. George Wills pathological essay prize: T. Dixon and C. A. Joll (equal). Clinical scholarships:—Martyn memorial pathological scholarship: C. A. Joll and T. Dixon. Tibbits Memorial prize (for practical surgery): C. A. Joll. Augustin Prichard prize (for anatomy): F. Morgan. Henry Clark prize (for proficiency in third year): F. Morgan. Henry Marshall prize (for proficiency during dresserships): C. A. Joll. Clark scholarship (for proficiency during dresserships): C. A. Joll. Sanders scholarship (for proficiency in medicine, surgery, and diseases of women): C. Clarke. Special midwifery certificates: C. A. Joll and S. Kingston. Committee silver medal: L. J. Short. Committee gold medal: C. Clarke.

THE ROYAL SOCIETY OF MEDICINE.—The annual dinner of the Royal Society of Medicine will be held at the Hotel Cecil on Friday, Dec. 4th. It has been decided that on this occasion the price of the ticket to Fellows and Members of Sections shall be 7*s.* 6*d.*, exclusive of wine.

Dr. A. R. Cushny will give a course of five lectures on Experimental Irregularities of the Heart in the Physiological Lecture-room, University College, London, on Fridays, at 5 P.M., commencing on Oct. 30th.

THE Royal Alexandra Infirmary, Paisley, has received a donation of £1250 from Mrs. Stewart Clark to name a bed in memory of her late husband, Mr. Clark of Dundas Castle, who during his lifetime took an active part in the work of the institution and was always one of its most generous supporters.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

The Autumn Session.

BOTH Houses of Parliament reassembled for the Autumn Session on Monday, Oct. 12th. As the autumn sitting is merely a continuation of the ordinary session for the purpose of dealing with the uncompleted programme of Government measures, no formal ceremony took place. Business was resumed in exactly the same manner as when the House of Commons adjourns from day to day. Members have had a holiday of ten weeks, and have this year at any rate avoided the fagging experience of sitting in August. In the House of Commons, where the Children Bill came up for consideration on report, there was a larger attendance of Members than might have been expected at the first sitting after the holidays. No doubt the interest in such matters as the suffrage for women agitation and the unemployed question brought many Members to town for the resumption of Parliament. Certainly, the appearance of a woman on the floor of the House demanding "Votes for Women" and the demonstration in the vicinity of Westminster on Tuesday night have forced these topics into further prominence.

Dublin Hospitals.

The annual report of the Board of Superintendence of the Dublin Hospitals for the year 1907-08 to the Lord Lieutenant of Ireland has been published as a Parliamentary paper. The Board reports that it has made an inspection of all the hospitals in Dublin receiving a Parliamentary grant. The report mentions that all the hospitals under the superintendence of the Board are managed in a thoroughly economic fashion. A sympathetic reference is made to the movement which the Countess of ABERDEEN has set on foot to try to check the spread of tuberculosis in Ireland. The Board contradicts the assertion that beds for the sick in the Dublin hospitals are in excess of the demands. On the contrary, there is wanted more and better accommodation.

The Report of the Medical Officer of the Local Government Board.

The report of the medical officer of the Local Government Board for 1906-07 has been issued and deals with the various matters relating to public health coming within the cognisance of the department. A tribute is paid in it to the work of Sir WILLIAM H. POWER, K.C.B., in the medical department. Sir WILLIAM POWER retired in January last, and the report mentions that his period of office has been brilliant in scientific advancement and marked by great sanitary amelioration throughout the country. Sir WILLIAM POWER'S influence both in initiating and in inspiring work of far-reaching scientific and practical importance (the report continues) impressed itself in every branch of the Board's medical administration.

HOUSE OF COMMONS.

MONDAY, OCT. 12TH.

The Children Bill.

The Children Bill came up for consideration on report. It passed through its committee stage in a Standing Committee, and amongst other subjects with which it deals are the overlying of infants, the provision of fireguards, and juvenile smoking.

Lord ROBERT CECIL, at the outset of the proceedings, moved the recommittal of that part of the Bill which would make it a criminal offence for any boy or girl under 16 to buy cigarettes or to be seen smoking in a public place. He said that he admitted that juvenile smoking was an unwholesome thing, but to speak of it as a terrific injury to the health of the country was an exaggeration. Professor G. Sims Woodhead and Sir William Broadbent, in their

evidence before a committee which investigated the subject, while opposed to cigarette smoking, had been unable to assign to it any specific evil. It was certainly not worse than keeping children out of bed until a late hour and he doubted whether it was as bad as excessive indulgence in sweets. The smoking of brown paper was a great deal worse. The vice of the Bill was that it proposed to apply the criminal law to the correction of a moral offence. Everyone recognised that it was the duty of a parent to stop a child smoking cigarettes, but there was a wide gap between that and making it a criminal offence for a boy or girl under 16 to buy cigarettes or be seen smoking in a public place.

Mr. BOWLES seconded the motion.

Mr. HERBERT SAMUEL (Under Secretary to the Home Office), who is in charge of the Bill, pointed out that juvenile smoking had already been considered by three committees. It had received very close consideration in the Standing Committee. There was no use, therefore, at this juncture to re-commit the part of the Bill relating to juvenile smoking. It was certainly unnecessary to have further medical evidence. The real point at issue was whether the legislation proposed in the Bill was suitable or not. That was a matter which the House had in its own hands.

Mr. LONG supported the motion of Lord Robert Cecil. He did not know where the medical men got their evidence to prove that physical deterioration in after years was due to juvenile smoking. He believed that the deterioration came from other causes. In any case juvenile smoking could be dealt with by much better methods than those proposed in the Bill.

The motion was defeated by 164 votes to 44.

Mr. SAMUEL moved the insertion of a new clause dealing with overlying. Its terms were as follows: "Where it is proved that the death of an infant under three years of age was caused by suffocation (not being suffocation caused by disease or the presence of any foreign body in the throat or air-passages of the infant) whilst the infant was in bed with some other person over 16 years of age, and that that other person was at the time of going to bed under the influence of drink, that other person shall be deemed to have neglected the infant in a manner likely to cause injury to its health within the meaning of the Act." Mr. Samuel explained that this clause was moved in substitution of the clause on overlying which found a place in the original Bill. It was brought forward as the result of long discussion in Committee. There were some 1600 deaths from overlying every year in England and Wales and it was impossible for the State to ignore this great mortality if it was preventable. The Society for the Prevention of Cruelty to Children had long urged the need for legislation and coroners throughout the country also appealed to Parliament to deal with the matter. The original clause made overlying an offence in all circumstances and punishable by a fine of £10 except where the guilty person was under the influence of drink at the time of going to bed, when it was £25. The Standing Committee was of opinion that this clause was too hard. Overlying was regarded as often being an accidental occurrence. He felt it his duty to give in to this view, and the new clause would make overlying an offence only when it could be proved to be due to drunkenness. However, he would point out to honourable Members that in Germany overlying was now regarded as an offence, and the result had been that deaths from this cause had been reduced to very small numbers. At the same time it was the case that many deaths by overlying were attributable to drunkenness. The Registrar-General's figures showed that the deaths from overlying were twice as numerous on Saturday nights as on other nights and were 50 per cent. more numerous in the weeks which included a bank holiday. There were 1453 inquests in England and Wales with regard to infants so suffocated last year and in only one case was there a verdict of manslaughter returned. It was necessary, therefore, to impose a penalty lighter than in the case of manslaughter and that was the purpose of the clause.

The clause was read a second time and after some discussion was added to the Bill.

Mr. WEDGWOOD moved a new clause prohibiting the giving of alcohol to children. It ran thus: "If any person give, or cause to be given, to any child under the age of five any intoxicating liquor, except upon the order of a fully qualified medical practitioner or in case of sickness or other urgent cause, he shall, on summary conviction, be liable to a fine not exceeding £3." The honourable Member said that a provision of this sort would strengthen the hands of the inspectors of the Society for the Prevention of Cruelty to Children and district visitors if they could point out to parents that the practice of giving beer or gin to children was forbidden by law.

Mr. SUMMERBELL seconded the motion.

Mr. AKERS DOUGLAS thought the clause unnecessary and pointed out that it created a new criminal offence. He asked why should the provision in consistency not be extended to the giving of narcotics to infants.

Mr. SAMUEL pointed out that the difficulty of enforcing such a clause as this would be very great. At the same time he recognised the evil of giving intoxicants to infants. The Government would leave the matter open, for it was clearly one which the House should decide for itself.

The clause was read a second time by 123 votes to 103.

A long discussion took place on the terms of the clause, and a proposal made by Lord ROBERT CECIL to include in its scope a prohibition to give infants any "substance containing any narcotic or other thing likely to be deleterious to the health of the child" was rejected by 172 votes to 62. However, amendments proposed by Mr. RAWLINSON were accepted to the effect that the order of a nurse or the apprehension of sickness should justify the administration of an intoxicating liquor to an infant.

The clause was added to the Bill.

In the subsequent discussion on the clauses already in the Bill,

Mr. RAWLINSON moved the omission of Clause 14. This clause provides that where a person having the custody of a child under seven years of age allows the child to be in a room containing an open firegrate not sufficiently protected to guard against the child being burned, and where by reason thereof the child is killed or suffers serious injury, he shall be liable to a fine not exceeding £10.

Mr. SAMUEL warmly defended the clause. He mentioned that in England and Wales there were 1400 cases of children being burned to death through unguarded fires.

Mr. BRAMSDON, speaking as a coroner, declared that the clause had the approval of coroners.

Mr. THEODORE TAYLOR remarked that in considering the deaths of children from burning the flannelette question must be kept in view. There were methods known to science to make flannelette uninflammable. He thought if some measure making it compulsory to render all flannelette clothing uninflammable were adopted it would save lives and suffering.

Sir WILLIAM COLLINS, speaking as a hospital surgeon, said that there was nothing more lamentable than the pain which was caused to children by burning. However, there were other causes for the burning accidents which occurred to children besides the lack of adequate fireguards. He instanced a case which had just come under his notice, where the cause of the accident was that the child had set fire to its clothes in playing with matches. However, he thought the clause was in the right direction.

The motion to omit the clause was defeated by 177 votes to 30.

TUESDAY, OCT. 13TH.

The Children Bill.

The House resumed the consideration on report of the Children Bill, devoting its attention to the part relating to juvenile smoking.

Sir F. BANBURY moved to omit Clause 39 which imposed a penalty on persons who sold to persons apparently under the age of 16 any cigarettes or cigarette papers. It was his opinion, he said, that if this clause passed smoking would be increased. Was it not likely that a boy of 15 years of age would go about with a cigarette in his mouth thinking that he was doing a manly thing in showing his defiance of the law? He believed that the clause was practically unworkable and he objected to the creation of new offences.

Mr. LUPTON seconded the motion. He objected to the penal character of the tobacco clauses.

Mr. SAMUEL said that the question of cigarette smoking amongst the young touched very closely the general question of national physique. He did not pretend that juvenile smoking was the main cause of physical deficiency as it existed. The conversion of the population into a nation of town dwellers, overcrowding, and underfeeding were the main causes of the low standard of physique. However, the evil of juvenile smoking did contribute to that low standard, and any measures which could be designed to check it would be beneficial to the nation. The subject had been inquired into again and again. The Royal Commission on Physical Training in Scotland said that "Tobacco-smoking before maturity is reached has a most prejudicial effect on physical development, and this evil and increasing practice cannot be too strongly denounced." The Inter-departmental Committee on Physical Deterioration reported that the habit of cigarette smoking amongst boys was growing and the consequences were deleterious. The Select Committee of the House of Lords on the subject recommended immediate legislation. This was no fad or vagary of the present administration. The Government felt that they must adhere to the clause which prohibited the sale of cigarettes to children. However, he had given notice of an amendment on Clause 41 (penalty on juvenile smoking) which would provide that proceedings should not be instituted unless notice had been given by an officer in charge of a police-station to the parent or guardian of the child or young person, but he did not regard the retention of that clause as important. In view of the conciliatory attitude of the Government on this and other points he appealed to the Opposition not to hinder unduly the progress of the Bill.

Lord ROBERT CECIL considered that it was impossible by legislation to prevent boys from smoking if the boys wished to smoke. The present clause would perpetuate the evil by replacing the authority of the parent by the illegitimate and wholly incapable authority of the State.

Mr. BALFOUR said that the point was whether honourable Members ought to embody in an Act of Parliament in an imperfect and incomplete form one particular medical recommendation with regard to the treatment of the young and whether if they embodied it they would carry out the object which they had in view. Since the medical world had been devoting itself to general questions of hygiene any number of views, sometimes quite inconsistent, had been put forward as to the proper methods of dealing with adult life, but even more so with young life. It was well known that the number of people who smoked, men and women, was increasing and he had not the least doubt that the increase of juvenile smoking arose merely from imitation by the young of the practices of their elders. They could not deal with medical questions by statute and there could not be a more conclusive proof of that than the attempt which they were now making. Nicotine might be taken in many ways, but the Bill dealt only with one of those ways. When they were legislating on what some of them thought a great hygienic evil surely they ought to deal with it in some comprehensive fashion approved of by the medical opinion of the day. Clauses like those in the Bill were most drastic, and one thing they could not do by Act of Parliament, and that was to create a feeling that something was immoral. If they thought that they were going to create this public opinion against juvenile smoking by an Act of Parliament they were under a fantastic delusion. If legislation on the lines of these clauses was to be undertaken it should be done in a separate Bill.

Mr. GLADSTONE (the Home Secretary) declared that the statements that the clause aimed a blow at liberty and would necessitate the doubling of the police force were exaggerated. The question which the House had to consider was whether the practice of smoking by the young was bad, was growing, and was threatening the health of the nation, and whether it was the duty of the House to endeavour to find a remedy, and whether the remedy proposed was adequate. Medical opinion had declared that smoking even moderately had a bad effect on the health of the young. There was a special danger in the smoking of cigarettes. The intention of the Government was to co-operate with parents. The mischief was that the boy did not smoke under the eyes of his parents. The Government could make no further concessions, as they believed that the proposals for dealing with the evil were the best that could be devised. He therefore asked the House to support the clause.

Sir F. BANBURY's motion to omit the clause was ultimately defeated by 231 votes to 84.

Amendments relating to the details of the clause were discussed for a considerable time.

Clause 41, which imposed a penalty on juvenile smoking, was deleted from the Bill without a division.

Another clause was under discussion at the adjournment.

WEDNESDAY, OCT. 14TH.

The Medical Inspection of School Children.

Mr. LUPTON asked the President of the Board of Education whether his attention had been called to the action of Dr. Adams, medical inspector of the St. Stephen's School, St. Margaret's, Twickenham, who examined the children for vaccination marks and reported the unvaccinated ones to the vaccination officer; whether his attention had been called to the action of the school nurse in calling upon the parents with regard to the vaccination of the children; and whether he proposed to take any action to prevent the repetition of this conduct.—Mr. RUNCIMAN replied: My attention has been called to this matter and I have made inquiry into the circumstances of the case which is receiving my consideration. The Board has never suggested to the local education authorities that they should, as part of the work of medical inspection under the Act of 1907, inquire whether school children have or have not been vaccinated. If inquiries are made on this point by any local education authority the information should be regarded as strictly confidential as between the local education authority and the parents of the children concerned, and as confidential ought not to be communicated to the vaccination officer or public vaccinator. I may add that I strongly deprecate any attempt on the part of local authorities to use the machinery of medical inspection for the purpose of enforcing vaccination. Such action is likely to discredit medical inspection in the eyes of many parents who would otherwise be glad to take advantage of it.

BOOKS, ETC., RECEIVED.

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On Means for the Prolongation of Life. Third and enlarged edition of a Lecture delivered before the Royal College of Physicians on Dec. 3rd, 1903. By Sir Hermann Weber, M.D., F.R.C.P., Consulting Physician to the German Hospital; the National Hospital for Consumption, Ventnor; and the Mount Vernon Hospital for Consumption; and a Member of the Consulting Committee of King Edward VII. Sanatorium at Midhurst. Price 4s. 6d. net.

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The Principles of Hygiene as Applied to Tropical and Sub-Tropical Climates and the Principles of Personal Hygiene in them as Applied to Europeans. By W. J. R. Simpson, M.D., F.R.C.P., D.P.H., Formerly Health Officer of Calcutta, Lecturer on Tropical Hygiene at the London School of Tropical Medicine, Professor of Hygiene, King's College, London. Price 15s. net.

CHURCHILL, J. AND A., 7, Great Marlborough-street, London, W.

First Lines in Dispensing. By E. W. Lucas, F.I.C., F.C.S., Pharmaceutical Chemist, late Examiner to the Pharmaceutical Society of Great Britain. Price 3s. 6d. net.

DUCKWORTH AND Co., 3, Henrietta-street, Covent Garden, London, W.C.

The Greatest Life. By Gerald Leighton, M.D. Edin., F.R.S. Edin., Author of "British Serpents," "British Lizards," etc. Price 5s. net.

FISCHER, GUSTAV, Jena.

Die Muskeln des Menschlichen Armes. Von Dr. Fritz Frohse und Dr. Max Fränkel. Preis M.24. Subskriptionspreis, M.20.

GREEN, WILLIAM, AND SONS, Edinburgh and London.

Diet in Infancy. The Essential Introduction to the Study of Disease in Childhood. By A. Dingwall-Fordyce, M.D., F.R.C.P. Ed., Extra Physician to the Royal Hospital for Sick Children, Edinburgh. Price 3s. 6d. net.

KABITZSCH, CURT (A. STUBER'S VERLAG), Würzburg.

Lehrbuch der Spezifischen Diagnostik und Therapie der Tuberkulose. Für Aerzte und Studierende. Von Dr. Bandelier, Oberarzt der Dr. Weicker'schen Lungenheilanstalten in Görbersdorf und Dr. Roepke, Dirigierendem Aerzte der Eisenbahnheilstätte in Melsungen. 2. Erweiterte und verbesserte Auflage. Price, paper, M.6; cloth, M.7.

Der Menschliche Körper in Sage, Brauch und Sprichwort. Von Prof. Karl Knortz, North Tarrytown, N.Y. Price M.3.20.

LONGMANS, GREEN, AND Co., 39, Paternoster-row, London, E.C.

How to Nurse Sick Children. By the late Charles West, M.D., Founder of, and late Physician to, the Hospital for Sick Children, Great Ormond-street. With a Preface by George F. Still, M.D., Physician to Out-patients, the Hospital for Sick Children. New edition. Price 1s. net.

MACMILLAN AND Co., LIMITED, St. Martin's-street, London, W.C.

A System of Medicine. By Many Writers. Edited by Sir Clifford Allbutt, K.C.B., M.A., M.D., LL.D., D.Sc., F.R.C.P., F.R.S., F.L.S., F.S.A., Regius Professor of Physic in the University of Cambridge, and Humphry Davy Rolleston, M.A., M.D., F.R.C.P., Senior Physician, St. George's Hospital. Vol. IV., Part I. Price 25s. net.

METHUEN AND Co., 36, Essex-street, Strand, London, W.C.

Memories of My Life. By Francis Galton, F.R.S., D.C.L. Oxf., Hon. Sc.D. Camb., Hon. Fellow Trinity Coll., Cambridge. Price 10s. 6d. net.

MOSBY (C.V.) MEDICAL BOOK AND PUBLISHING Co., St. Louis.

Diseases of the Skin. By A. H. Ohmann-Dumesnil, A.M., M.E., M.D., Ph.D., &c., formerly Professor of Dermatology and Syphilology in the St. Louis College for Medical Practitioners. Third edition, thoroughly revised and enlarged. Price $4.00.

PUTNAM'S SONS (G.P.), New York and London.

Essentials of Dietetics in Health and Disease. A Text-book for Nurses and a Practical Dietary Guide for the Household. By Amy Elizabeth Pope, Author, with Anna Caroline Maxwell, of "Practical Nursing," and Instructor in Practical Nursing and Dietetics in the Presbyterian Hospital School of Nursing, and Mary L. Carpenter, Director of Domestic Science of the Public Schools, Saratoga Springs, New York. Price 5s.

REID, ANDREW, AND COMPANY, Limited, London, and Newcastle-upon-Tyne.

Armstrong College, Newcastle-upon-Tyne. (In the University of Durham.) Calendar. Session 1908–1909. Price 1s.; post free 1s. 4d.

ROCKEFELLER INSTITUTE FOR MEDICAL RESEARCH, Sixty-sixth-street, and Avenue A, New York.

Studies from the Rockefeller Institute for Medical Research. Reprints. Vol. VIII. 1908. Price not stated.

SAMPSON LOW, MARSTON AND Co., LIMITED, 100, Southwark-street, London, S.E.

A Book of Simples. Being a Faithful Copy of a Still-room Book (Early 18th Century). With an Introduction by H. W. Lewer and a Cookery and Herbal Bibliography. Price 14s. net.

SCHOETZ, RICHARD, Wilhelmstrasse, 10, Berlin.

Die Künstliche Züchtung des Krebserregers, seine Feststellung in der Aussenwelt und der rationelle Krebsschutz. Von Dr. Robert Behla, Geheimer Medizinalrat. Price, M.2.50.

Methoden und Technik der Gewinnung, Prüfung u. Konservierung des zur forensischen Blut-bezw. Eiweissdifferenzierung dienenden Antiserums. Von Dr. Otto Leers, Assistent der Universitäts-Unterrichtsanstalt für Staatsarzneikunde zu Berlin. (Direktor: Geh. Rat. F. Strassmann.) Price Pf. 80.

SMITH, ELDER AND Co., 15, Waterloo-place, London, S.W.

Round the Fire Stories. By Arthur Conan Doyle, Author of "The White Company," &c. With a Frontispiece by A. Castaigne. Price 6s.

SPRINGER, JULIUS, Monbijouplatz, 3, Berlin, N.24.

Erdsalzarmut und Entartung. Von Hofrat Dr. med. C. Röse. Price M.2.40.

STANFORD, EDWARD, 12, 13, and 14, Long Acre, London, W.C.

British Rainfall, 1907. On the Distribution of Rain in Space and Time over the British Isles during the Year 1907. By Hugh Robert Mill. Forty-seventh Annual Volume. Price 10s.

THIN, JAMES, Edinburgh (SIMPKIN, MARSHALL AND Co., London).

A Guide to the Feeding of the Infant during the First Year. By By J. W. Simpson, M.D., F.R.C.P.E., Assistant Physician, Sick Children's Hospital, Edinburgh. Price not stated.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, such information for gratuitous publication.*

ADAMSON, H. G., M.D. Lond., M.R.C.P. Loud., has been appointed Physician-in-Charge of the Skin Department at St. Bartholomew's Hospital.

ANDERSON, ANDREW WOODROFFE, M.B., C.M. Glasg., has been appointed Medical Inspector of Schools by the Rhondda (Glamorganshire) Urban District Council.

BAGNALL, R. G. A., M.B., Ch.B. Edin., has been appointed Assistant Medical Officer at the Wye House Asylum, Buxton.

BENSON, P. L., M.D., M.S.Q.U. Irel., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Calvert District of the county of Buckingham.

BLACKETT, JAMES FRANCIS, M.B., B.S. Lond., has been appointed Medical Officer to the Bristol Dispensary.

EXHAM, A. R. F., M.D. Dub., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Market Drayton District of the county of Salop.

FENTON, WILLIAM WALTER, M.D., B.Ch. Dub., L.M. Irel., has been appointed District Medical Officer by the Wincanton (Somerset) Board of Guardians.

FINZEL, HARRY, M.D., B.S. Lond., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer to the Bristol Dispensary.

HOGAN, E. F., L.R.C.P. & S. Edin., L.F.P.S. Glasg., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Coolrain District of Queen's County.

ISAAC, B., L.R.C.P. & S. Edin., L.F.P.S. Glasg., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Cerrig-y-Druidion District of the county of Denbigh.

LAWRY, J. LITTLETON, M.B., B.S. Lond., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Resident Medical Officer at the British Lying-in Hospital.

MCGUINNESS, L., L.R.C.P. & S. Irel., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Crossmolina District of the county of Mayo.

MOORE, LEONARD AUGUSTINE, L.R.C.P. Lond., M.R.C.S., has been appointed Honorary Assistant Anæsthetist to the Bristol Royal Infirmary.

SACHS, ALFRED L., M.R.C.S., L.R.C.P. Lond., has been appointed House Surgeon at the Queen's Hospital for Children, Hackney-road.

SAXBY, T. E., L.R.C.P. & S. Edin., L.F.P.S. Glasg., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Unst District of the county of Zetland.

SOMERVILLE, J. A., M.B., B.S. Glasg., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Invergordon District of the county of Ross and Cromarty.

SQUIRE, E. W., M.B., B.S. Lond., has been appointed Casualty Officer to the Bristol Royal Infirmary.

TURNER, H. WATSON, M.R.C.S., L.R.C.P. Lond., L.D.S. R.C.S. Eng., has been appointed Assistant Dental Surgeon to the Middlesex Hospital.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BARROW-IN-FURNESS EDUCATION COMMITTEE.—School Medical Officer. Salary £200 per annum.

BATH, ROYAL MINERAL WATER HOSPITAL.—Resident Medical Officer. Salary £100, with board, lodging, and laundry.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Resident Surgical Officer. Salary £80 per annum, with board, washing, and attendance.

BOLTON INFIRMARY AND DISPENSARY.—Junior House Surgeon. Salary £100 per annum, with board, apartments, and attendance.

BRADFORD CHILDREN'S HOSPITAL.—House Surgeon. Salary £100.

BRADFORD POOR-LAW HOSPITAL AND WORKHOUSE.—Assistant Resident Medical Officer, unmarried. Salary £130 per annum, with rations, apartments, and washing.

BRIGHTON, SUSSEX COUNTY HOSPITAL.—House Physician, unmarried. Salary £70 per annum, with apartments, board, and laundry.

BRISTOL GENERAL HOSPITAL.—Casualty House Surgeon. Salary £80 per annum, with board, residence, &c.

BRISTOL ROYAL INFIRMARY.—Resident Casualty Officer for six months. Salary at rate of £50 per annum, with board, lodging, and washing.

BUXTON, DERBYSHIRE, DEVONSHIRE HOSPITAL.—Assistant House Surgeon. Salary £70 per annum, with apartments, board, and laundry.

CAMBRIDGESHIRE, &C., LUNATIC ASYLUM, Fulbourn, near Cambridge.—Second Assistant Medical Officer, unmarried. Salary £120 per annum, with board, lodging, and attendance.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn-road, W.C.—House Surgeon. Salary at rate of £50 per annum, with board and residence.

CHINGFORD HOSPITAL FOR INFECTIOUS DISEASE.—Resident Medical Officer. Salary £120 per annum, with rooms and board.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Resident Medical Officer. Salary £120 per annum, with board, &c. Also House Physician for six months. Salary at rate of £50 per annum, with board, washing, and residence.

DREADNOUGHT HOSPITAL, Greenwich.—Assistant Physician. Also Dental Surgeon.

DUMFRIES AND GALLOWAY ROYAL INFIRMARY.—Assistant House Surgeon. Salary £55 per annum, with board and lodging.

DURHAM COUNTY EDUCATION COMMITTEE.—School Medical Inspector. Salary £300 per annum.

DURHAM COUNTY HOSPITAL.—House Surgeon. Salary £120 per annum, with board and lodging.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge-road, London, S.E.—House Physician for nine months. Salary at rate of £60 per annum, with board, residence, and washing.

FULHAM INFIRMARY, St. Dunstan's-road, Hammersmith.—Second Assistant Medical Officer for six months. Salary at rate of £100 per annum, with board, apartments, and washing.

GATESHEAD EDUCATION COMMITTEE.—Assistant School Medical Officer. Salary £250 per annum.

GENERAL INFIRMARY AT GLOUCESTER AND THE GLOUCESTERSHIRE EYE INSTITUTION.—Assistant House Surgeon for six months. Salary at rate of £80 per annum, with board, residence, and washing. Also Physician.

GLOUCESTER COUNTY ASYLUMS.—Junior Assistant Medical Officer. Salary £150 per annum, rising to £180, with board, lodging, and washing.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway-road, N.—Junior House Surgeon for five months. Salary at rate of £35 per annum, with board, lodging, and washing.

GUILDFORD, ROYAL SURREY COUNTY HOSPITAL.—Assistant House Surgeon. Salary £50 per annum, with board, residence, and laundry.

HOLLOWAY SANATORIUM HOSPITAL FOR THE INSANE, Virginia Water, Surrey.—Junior Assistant Medical Officer (female). Salary £150 per annum, rising to £200, with board, lodging, laundry, attendance, &c.

HOSPITAL FOR EPILEPSY AND PARALYSIS AND OTHER DISEASES OF THE NERVOUS SYSTEM, Maida Vale, W.—Resident Medical Officer for six months. Salary at rate of £50 per annum, with board, lodging, and washing.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, London, W.C.—House Physician and House Surgeon for six months. Salaries £30, with board and residence. Also Assistant Casualty Medical Officer for six months. Salary £20, with board and residence.

HUDDERSFIELD INFIRMARY.—Junior House Surgeon. Salary £80 per annum, with board, residence, and washing.

ITALIAN HOSPITAL, Queen-square, London, W.C.—House Surgeon for six months, renewable. Salary £60 per annum, with board and residence.

LANCASTER, ROYAL LANCASTER INFIRMARY.—House Surgeon, unmarried. Salary £100 per annum, with residence, board, attendance, and washing.

LIVERPOOL EDUCATION COMMITTEE.—Two School Medical Officers. Salary £250 per annum.

LONDON COUNTY COUNCIL.—Medical Officer to employees in District comprising the Borough of Camberwell (south of Peckham-road, High-street, and Queen's-road).

MANCHESTER ROYAL INFIRMARY.—Two Medical Officers. Salary £160 per annum each, with board and residence.

MARGATE, ROYAL SEA BATHING HOSPITAL.—Resident Surgeon, as Junior and later as Senior. Salary at rate of £80 and £120 per annum respectively, with board and residence.

MIDDLESEX HOSPITAL.—Hollins, Emden, and Salters Company's Scholarships. Value £100 per annum each.

NEW HOSPITAL FOR WOMEN, Euston-road, N.W.—Senior Assistant in the Out-patient Department, Senior Assistant to the Ophthalmic Department, and Clinical Assistants (all females).

NEWPORT AND MONMOUTHSHIRE HOSPITAL.—Third Resident Medical Officer. Salary £60 per annum, with board, residence, and laundry.

NORFOLK EDUCATION COMMITTEE.—Two Assistant Medical Officers. Salary £250 per annum and necessary travelling expenses.

PAPA WESTRAY PARISH COUNCIL, Orkney.—Public Vaccinator. Salary £90 per annum, with fees and house.

PETERBOROUGH INFIRMARY AND DISPENSARY.—Assistant Physician.

POPLAR HOSPITAL FOR ACCIDENTS, Poplar, E.—Assistant House Surgeon for six months. Salary at rate of £80 per annum, with board and residence.

PRINCE OF WALES' GENERAL HOSPITAL, Tottenham, N.—House Surgeon, House Physician, Junior House Surgeon, and Junior House Physician, all for six months. Salary of two former £75 per annum, and of two latter £40 per annum, with residence, board, and laundry. Also Honorary Anæsthetist.

ROYAL EAR HOSPITAL, Soho.—House Surgeon. Salary £40 per annum.

ROYAL NAVY, MEDICAL DEPARTMENT.—Fifteen Commissions.

ST. MARY'S HOSPITAL, Paddington, W.—Casualty Physician. Salary £75 per annum.

SURREY, COUNTY OF.—Public Analyst.

TAUNTON AND SOMERSET HOSPITAL, Taunton.—Resident Assistant House Surgeon for six months. Salary at rate of £50 per annum, with board, lodging, and laundry.

TIVERTON, DEVONSHIRE, INFIRMARY AND DISPENSARY.—House Surgeon and Dispenser. Salary £80 per annum and all found.

TRURO, ROYAL CORNWALL INFIRMARY.—House Surgeon, unmarried. Salary £100 per annum, with board and apartments.

WARRINGTON INFIRMARY AND DISPENSARY.—Third House Surgeon, unmarried. Salary £80 per annum, with residence, board, and laundry.

WEST HAM INFIRMARY, Whipps Cross-road, Leytonstone, N.E.—Medical Superintendent. Salary £700 per annum, with house, light, and coal.

WIGAN, COUNTY BOROUGH OF, EDUCATION DEPARTMENT.—Assistant School Medical Officer. Salary £200 per annum.

WORKSOP DISPENSARY AND VICTORIA HOSPITAL.—Medical Officer and House Surgeon. Salary £150 per annum, with rooms, furniture, coals, gas, and attendance.

Births, Marriages, and Deaths.

BIRTHS.

LLOYD.—On Oct. 11th, at Park-street West, Luton, Beds, the wife of F. Seymour Lloyd, M.D. Lond., of a son.

MARSHALL.—On Oct. 3rd, at Hamilton-drive, Glasgow, W., the wife of W. G. Marshall, M.B., of a son.

REYNOLDS.—On Oct. 8th, at Highcroft, Shepherd's-hill, Highgate, N., the wife of Austin Edward Reynolds, M.R.C.S. Eng., of a daughter.

MARRIAGES.

DRAKE—STEWART.—On Oct. 7th, at Holy Trinity, Sloane-street, John Alexander Drake, M.B. Lond., M.R.C.S. Eng., L.R.C.P. Lond., of Tenby, to Ethel Lorna Stewart, elder daughter of the late Charles James Stewart and of Mrs. Voules, Federated Malay States.

GRIFFITHS—EDWARDS.—On Oct. 10th, at the parish church, Llanfairwaterdine, Salop, by the Rev. Harold E. Mason, John Alban Kendall Griffiths, M.B. Lond., M.R.C.S. & L.R.C.P., of Knighton, Radnorshire, to Jessie Mary, youngest daughter of the late W. Richmond Edwards, Esq., of Skybourg, Knighton.

KNOWLES STANSFIELD—VIVANTI.—On Oct. 7th, at St. Paul's, Knightsbridge, by the Rev. Dr. Lightfoot, Vicar of Cross Stone, Todmorden, assisted by the Rev. Edward Denny, M.A., Vicar of St. Peter's, Vauxhall, and the Rev. Herbert Hughes, B.A., St. Paul's, Knightsbridge, and the Rev. J. J. Brownhill, B.A., Chaplain of Bexley Asylum, Thomas Edward Knowles Stansfield, M.B., Resident Physician and Superintendent, London County Asylum, Bexley, Kent, to Marie Caroline, widow of the late F. A. Vivanti of New York and Yokohama, and daughter of the late the Hon. James Dever and Mrs. Dever of St. John, New Brunswick.

MARSHALL—EMMETT.—On Oct. 10th, at All Saints' Church, St. John's Wood, by the Rev. J. Richardson Eyre, M.A., Charles Frederic Marshall, M.D., M.Sc., F.R.C.S., to Blanche, eldest daughter of William Henry Emmett, Esq., late of Norwich.

WOOD—JACOBS.—On Oct. 13th, at Kensington, George Ernest Wood, M.R.C.S. Eng., L.R.C.P. Lond., younger son of the late Joseph Wood, Esq., of Stroud, to Belle Margaret, elder daughter of the late Emanuel Jacobs, Esq., and of Mrs. Lilian Jacobs, of 22, Stanley-gardens, Kensington, W.

DEATHS.

BERRY.—On Oct. 9th, suddenly, at 1, South Bank-terrace, Surbiton, Other Windsor Berry, M.R.C.S., in his 65th year.

FREELAND.—On Oct. 9th, at his residence, Delamere, Snodland, Kent, Douglas Law Freeland, M.R.C.S. Eng., L.R.C.P. Lond., aged 40 years.

INGLIS.—On Oct. 10th, Arthur Stephen Inglis, M.D., C.M., of East Ascent, St. Leonards-on-Sea, aged 45 years.

LAYNG.—On Oct. 4th, at Eldorado-road, Cheltenham, Henry Layng, M.R.C.S. Eng., L.R.C.P. Lond., of Swatow, China, eldest son of the late Rev. Henry Layng, M.A., of Fouldon Vicarage, Norfolk, and Wisbech, Cambs., aged 48. Chinese papers kindly copy.

SPENCE.—On Oct. 8th, at Kinghorn, Fife, Alexander Bain Spence, M.B., Ch.B Edin., aged 27.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

A POINT IN MEDICAL ETHICS.

To the Editor of THE LANCET.

SIR,—I read in THE LANCET of Sept. 26th "A Point in Medical Ethics," raised by "M.R.C.S., L.R.C.P." Your comments on the case appeared to me contrary to general custom in these matters. I may also say that every single reader of the case I have met condemns "M.R.C.S., L.R.C.P." promptly and unreservedly. The rule universally acknowledged by medical men and under which agents work is that information supplied is not to be used to the detriment of the vendor. People are judged by their actions and the obvious deduction is that your correspondent was influenced in his choice by the information he had received relative to the practitioner's illness and his desire to sell, as he would have a better chance in the way of weakened opposition and a possible change in the near future. His setting up has decreased the value of the vendor's practice. This, to one in indifferent health and endeavouring to sell, is a serious matter. Medical men are, and should be, adamant on the point of condemning such tactics and holding the above rule inviolate.

One is glad to know that there are five medical men who have the courage to show your correspondent what they think of the matter. As it is usual for medical men to avoid such a situation your correspondent will only have himself to blame if he is generally ignored by his professional colleagues. I am, Sir, yours faithfully,

Oct. 5th, 1908. A SIXTH MEDICAL MAN.

CORONERS' INQUESTS.

To the Editor of THE LANCET.

SIR,—Here are two samples of coroners' varying customs in less than a fortnight:—

1. I was called to see a woman, aged 67 years, who had, I was told, not had illness of any kind for a long time. I found her dead on the sofa, and a man had been dozing in the same room and heard no noise. I was told that she had been much upset and had fretted at the loss of parish relief. I went to tell the policeman, who is coroner's officer, but he had already started for the coroner and I never saw him or heard officially from him or the coroner; but no inquest was held. Surely this case seemed suspicious and one might expect the coroner, who is a lawyer, to require some medical report.

2. In the next coroner's district I saw, at the pithead, a man brought up out of a coal mine evidently with the internal organs of his trunk crushed, from which he died at once. There was plenty of evidence of his perfect health, of the fall of rock burying his trunk, and of no other possible cause of death. I told the policeman, here also coroner's officer, and two days later received his telegram, only, being less than two hours' notice, I could not get over the 18 miles I was distant from the inquest room in time, so sent an apology. The coroner here was a medical man.

I have had no personal inconvenience or loss, for, as a locum tenens, in each case I escaped post mortems and evidence, the fees for which would have been my principal's, so I write with no soreness; but it seems as if coroners hold most variable views as to the necessity for an inquest. I am, Sir, yours faithfully,

Oct. 5th, 1908. QUARE.

Trunk.—Our correspondent should advise the patient to consult his usual medical man who will be quite able to suggest the best course to take for the removal or improvement of the deformity.

M. F. T.—Our correspondent has omitted to inclose his name and address.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Oct. 15th, 1908.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radio in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks.
Oct. 9	30·00	S.W.	...	82	67	57	61	63	Overcast
,, 10	29·95	S.W.	0·24	96	65	56	55	56	Cloudy
,, 11	30·29	S.W.	...	94	64	51	55	56	Fine
,, 12	30·18	S.E.	...	104	66	52	55	55	Hazy
,, 13	30·08	S.E.	...	81	64	55	56	56	Overcast
,, 14	30·02	WSW	...	87	64	55	54	56	Overcast
,, 15	30·08	WSW	...	98	69	53	55	56	Fine

During the week marked copies of the following newspapers have been received:—*Batley News, Sunderland Daily Echo, City Press, The Citizen, Aberdeen Evening Gazette, Blackburn Telegraph, Wolverhampton Evening News, Daily Graphic, Building News, Daily Chronicle, Birmingham Post, Maidstone Gazette, Stockport Advertiser, Sittingbourne Gazette, Cheshire Observer, Freeman's Journal, Derbyshire Advertiser, Manchester Guardian, Birmingham Mail, Newcastle Journal, York Herald, Glasgow Record, &c.*

Medical Diary for the ensuing Week.

SOCIETIES.

ROYAL SOCIETY OF MEDICINE, 20, Hanover-square, W.

TUESDAY.

PATHOLOGICAL SECTION (Hon. Secretaries—Leonard S. Dudgeon, O. Grünbaum): at 8.30 P.M.

Papers:

Dr. P. N. Panton: An Investigation into some Aspects of the Action of Arsenic.

Mr. Lawford Knaggs: A Case of a Rare Disease of the Long Bones terminating in Sarcoma of the Femur.

Dr. J. P. Candler: Acute Yellow Atrophy of the Liver.

Dr. J. Burton Cleland: A Preliminary Note on Melanotic Deposits in Cattle and Sheep in Western Australia.

FRIDAY.

SECTION FOR THE STUDY OF DISEASE IN CHILDREN (Hon. Secretaries—Hugh Lett, E. I. Spriggs): at 5 P.M.

Paper:

Dr. F. W. Higgs: A Case of Toxæmia apparently caused by Ascaris Lumbricoides.

Specimen:

Dr. Poynton and Dr. R. H. Miller: Cleido-cranial Dystosis.

Cases:

Dr. Porter Parkinson: Congenital Morbus without Cardiac Murmur.

Dr. F. W. Higgs: Congenital Morbus Cordis.

Dr. J. Walter Carr: Enlarged Spleen.

Dr. Poynton and Dr. W. M. Jeffreys: Post-basic Meningitis treated by Intraspinal Injection of Ruppel's Serum.

Dr. Edmund Cautley: (1) Dextrocardia; (2) Prolonged Pyrexia of Uncertain Causation.

Dr. George Carpenter: Two Cases of Microcephalic Idiocy with Changes in the Fundus Oculi.

(Other Cases will also be shown.)

EPIDEMIOLOGICAL SECTION (Hon. Secretaries—W. H. Hamer, G. S. Buchanan): at 8.30 P.M.

Paper:

Dr. Owen H. Peters: Season and Disease: A Preliminary Study.

N.B.—Fellows of the Society are entitled to attend and to speak at all Meetings.

CHILD STUDY SOCIETY LONDON, Parkes Museum, Margaret-street, W.

THURSDAY.—8 P.M., Miss A. Ravenhill: Some Results of an Investigation into Hours of Sleep among English Elementary School Children.

ROYAL MICROSCOPICAL SOCIETY, 20, Hanover-square, W.

WEDNESDAY.—8 P.M., Mr. W. Wesché: The Mouth-parts of the Nemocera and their Relation to the other Families in Diptera; Corrections and Additions to the Paper published in 1904.—Mr. E. M. Nelson: (1) On the Resolution of Periodic Structures; (2) an Auxiliary Illuminating Lens.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C.

MONDAY.—12 (noon), Prof. Shattock: Hypertrophy. (Museum Demonstration.)

FRIDAY.—5 P.M., Prof. Keith: On Specimens illustrating Malformations of the Urethra and Genital Passages. (Museum Demonstration.)

POST-GRADUATE COLLEGE, West London Hospital, Hammersmith-road, W.

MONDAY.—10 A.M., Surgical Registrar: Demonstration. 12 noon, Dr. Low: Pathological Demonstration. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. Dunn: Diseases of the Eyes. 2.30 P.M., Operations. 5 P.M., Lecture:—Mr. Lloyd: Anæsthetics.

TUESDAY.—10 A.M., Dr. Moullin: Gynæcological Operations. 12.15 P.M., Dr. Pritchard: Practical Medicine. 2 P.M., Medical and Surgical Clinics. X Rays. Diseases of the Throat, Nose, and Ear. 2.30 P.M., Operations. Dr. Abraham: Diseases of the Skin. 5 P.M., Lecture:—Mr. Armour: Whitlow.

WEDNESDAY.—10 A.M., Dr. Saunders: Diseases of Children. 2 P.M., Medical and Surgical Clinics. X Rays. Dr. Scott: Diseases of the Eyes. 2.30 P.M., Operations. 5 P.M., Lecture:—Mr. L. Williams: When to Extract.

THURSDAY.—10 A.M., Surgical Registrar: Demonstration. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. Dunn: Diseases of the Eyes. 2.30 P.M., Operations. 5 P.M., Mr. Baldwin: Practical Surgery.

FRIDAY.—10 A.M., Dr. Moullin: Gynæcological Operations. 12.15 P.M., Lecture:—Dr. Pritchard: Practical Medicine. 2 P.M., Medical and Surgical Clinics. X Rays. Diseases of the Throat, Nose, and Ear. 2.30 P.M., Operations. Dr. Abraham: Diseases of the Skin. 5 P.M., Lecture:—Mr. Armour: Gangrene.

SATURDAY.—10 A.M., Dr. Saunders: Diseases of Children. 2 P.M., Medical and Surgical Clinics. X Rays. Dr. Scott: Diseases of the Eyes. 2.30 P.M., Operations.

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.

MONDAY.—2 P.M., Operations. 2.15 P.M., Sir Dyce Duckworth: Medicine. 3.15 P.M., Mr. Turner: Surgery. 4 P.M., Mr. Lawrence: Ear and Throat. Out-patient Demonstrations:—10 A.M., Surgical and Medical. 12 noon, Ear and Throat.

TUESDAY.—2 P.M., Operations. 2.15 P.M., Dr. R. Wells: Medicine. 3.15 P.M., Mr. Carless: Surgery. 4 P.M., Sir M. Morris: Diseases of the Skin. Out-patient Demonstrations:—10 A.M., Surgical and Medical. 12 noon, Skin.

WEDNESDAY.—2 P.M., Operations. 2.15 P.M., Dr. F. Taylor: Medicine. 3.30 P.M., Mr. Cargill: Ophthalmology. Out-patient Demonstrations:—10 A.M., Surgical and Medical. 11 A.M., Eye. 2.15 P.M., Special Lecture:—Dr. Taylor: The Bladder in Medical Cases.

THURSDAY.—2 P.M., Operations. 2.15 P.M., Dr. G. Rankin: Medicine. 3.15 P.M., Sir W. Bennett: Surgery. 4 P.M., Radiography. Out-patient Demonstrations:—10 A.M., Surgical and Medical. 12 noon, Ear and Throat.

FRIDAY.—2 P.M., Operations. 2.15 P.M., Dr. R. Bradford: Medicine. 3.15 P.M., Mr. McGavin: Surgery. Out-patient Demonstrations:—10 A.M., Surgical and Medical. 12 noon, Skin. 2.15 P.M., Special Lecture:—Mr. McGavin: The Surgery of Rectal Stenosis.

SATURDAY.—2 P.M., Operations. Out-patient Demonstrations:—10 A.M., Surgical and Medical. 11 A.M., Eye.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.

MONDAY.—Clinics:—10 A.M., Surgical Out-patient (Mr. J. H. Evans). 2.30 P.M., Medical Out-patient (Dr. Whipham); Nose, Throat, and Ear (Mr. Carson); X Rays. 4.30 P.M., Medical In-patient Clinic (Dr. Whiting).

TUESDAY.—Clinic: 10 A.M., Medical Out-patient (Dr. Auld). 2.30 P.M., Surgical Operations (Mr. Carson). Clinics:—Surgical (Mr. Edmunds); Gynæcological (Dr. Giles). 4.30 P.M., Lecture-Demonstration: The Anæsthetic Technique for Operations on the Nose and Throat (Mr. de Prenderville).

WEDNESDAY.—Clinics:—2.30 P.M., Medical Out-patient (Dr. Whipham); Skin (Dr. Meachen); Eye (Mr. Brooks).

THURSDAY.—2.30 P.M., Gynæcological Operations (Dr. Giles). Clinics:—Medical Out-patient (Dr. Whiting); Surgical (Mr. Carson); X Rays. 3 P.M., Medical In-patient (Dr. Chappel). 4.30 P.M., Lecture:—Dr. Giles: The Preparation for Abdominal Operations.

FRIDAY.—10 A.M., Clinic:—Surgical Out-patient (Mr. J. H. Evans). 2.30 P.M., Surgical Operations (Mr. Edmunds). Clinics:—Medical Out-patient (Dr. Auld); Eye (Mr. Brooks).

HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM, Welbeck-street, W.

THURSDAY.—5 P.M., Dr. T. D. Savill: Cases illustrating Symptoms referable to the Ends of the Extremities.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN, Leicester-square, W.C.

THURSDAY.—6 P.M., Chesterfield Lecture:—Eczema, its Varieties, Symptoms, and Causes.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen-square, Bloomsbury, W.C.

TUESDAY.—3.30 P.M., Dr. Beevor: Cerebral Anatomy and Localisation.

FRIDAY.—3.30 P.M., Dr. Beevor: Cerebral Anatomy and Localisation.

OPERATIONS.

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MONDAY (19th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Royal Free (2 P.M.), Guy's (1.30 P.M.), Children, Gt. Ormond-street (9 A.M.), St. Mark's (2.30 P.M.).

TUESDAY (20th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Soho-square (2 P.M.), Chelsea (2 P.M.), Central London Throat and Ear (2 P.M.), Children, Gt. Ormond-street (9 A.M. and 2 P.M.), Ophthalmic (2 P.M.), Tottenham (2.30 P.M.).

WEDNESDAY (21st).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Royal Ear (2 P.M.), Royal Orthopædic (3 P.M.), Children, Gt. Ormond-street (9 A.M. and 9.30 A.M., Dental, 2 P.M.), Tottenham (Ophthalmic, 2.30 P.M.), West London (2.30 P.M.).

THURSDAY (22nd).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Royal Orthopædic (9 A.M.), Royal Ear (2 P.M.), Children, Gt. Ormond-street (9 A.M. and 2 P.M.), Tottenham (Gynæcological, 2.30 P.M.), West London (2.30 P.M.).

FRIDAY (23rd).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), City Orthopædic (2.30 P.M.), Soho-square (2 P.M.), Central London Throat and Ear (2 P.M.), Children, Gt. Ormond-street (9 A.M., Aural, 2 P.M.), Tottenham (2.30 P.M.), St. Peter's (2 P.M.).

SATURDAY (24th).—Royal Free (9 A.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing Cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 A.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Children, Gt. Ormond-street (9 A.M. and 9.30 A.M.), West London (2.30 P.M.).

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